THE

# SOUTHERN REVIEW,

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APRIL, 1869.

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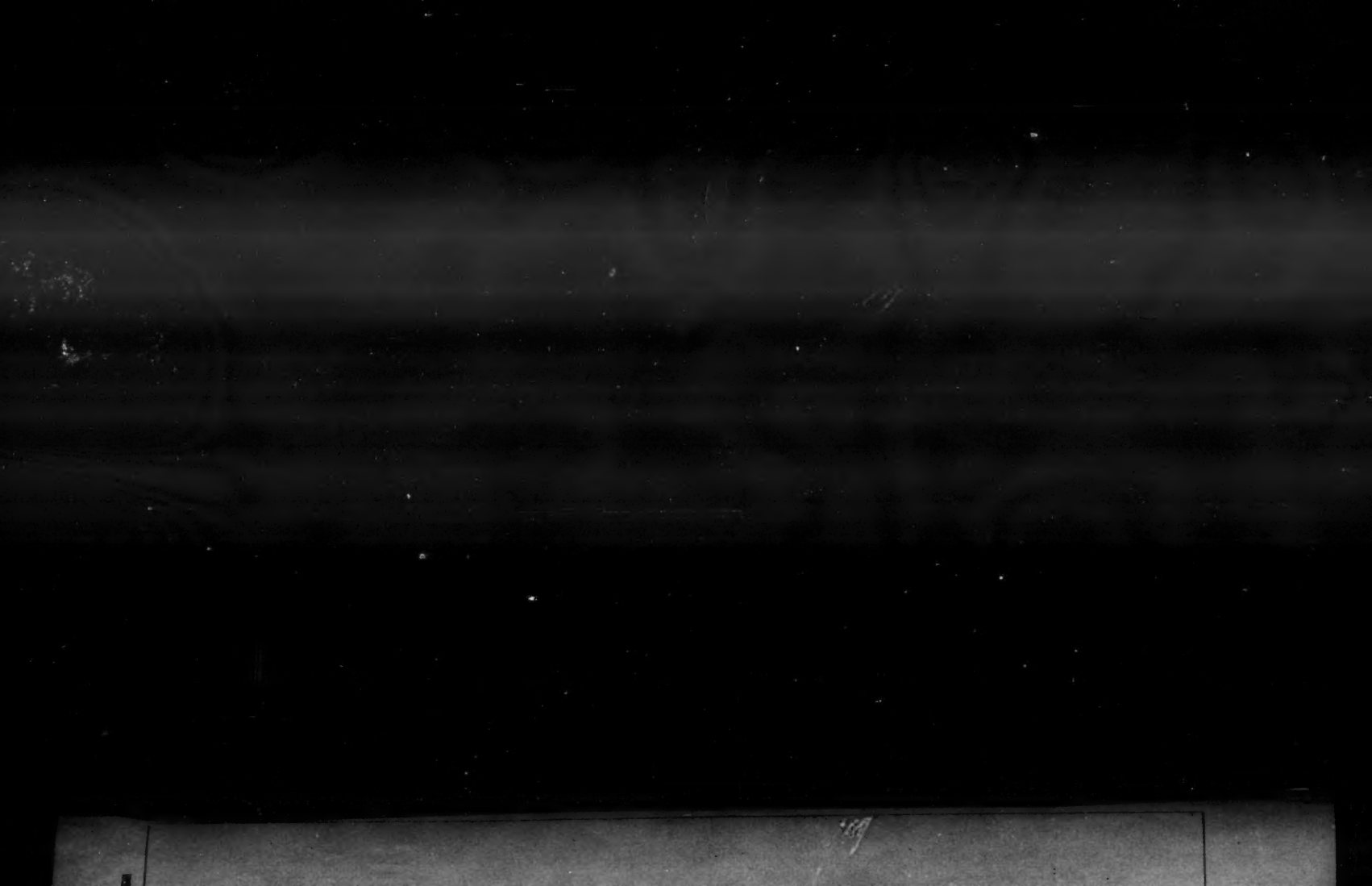

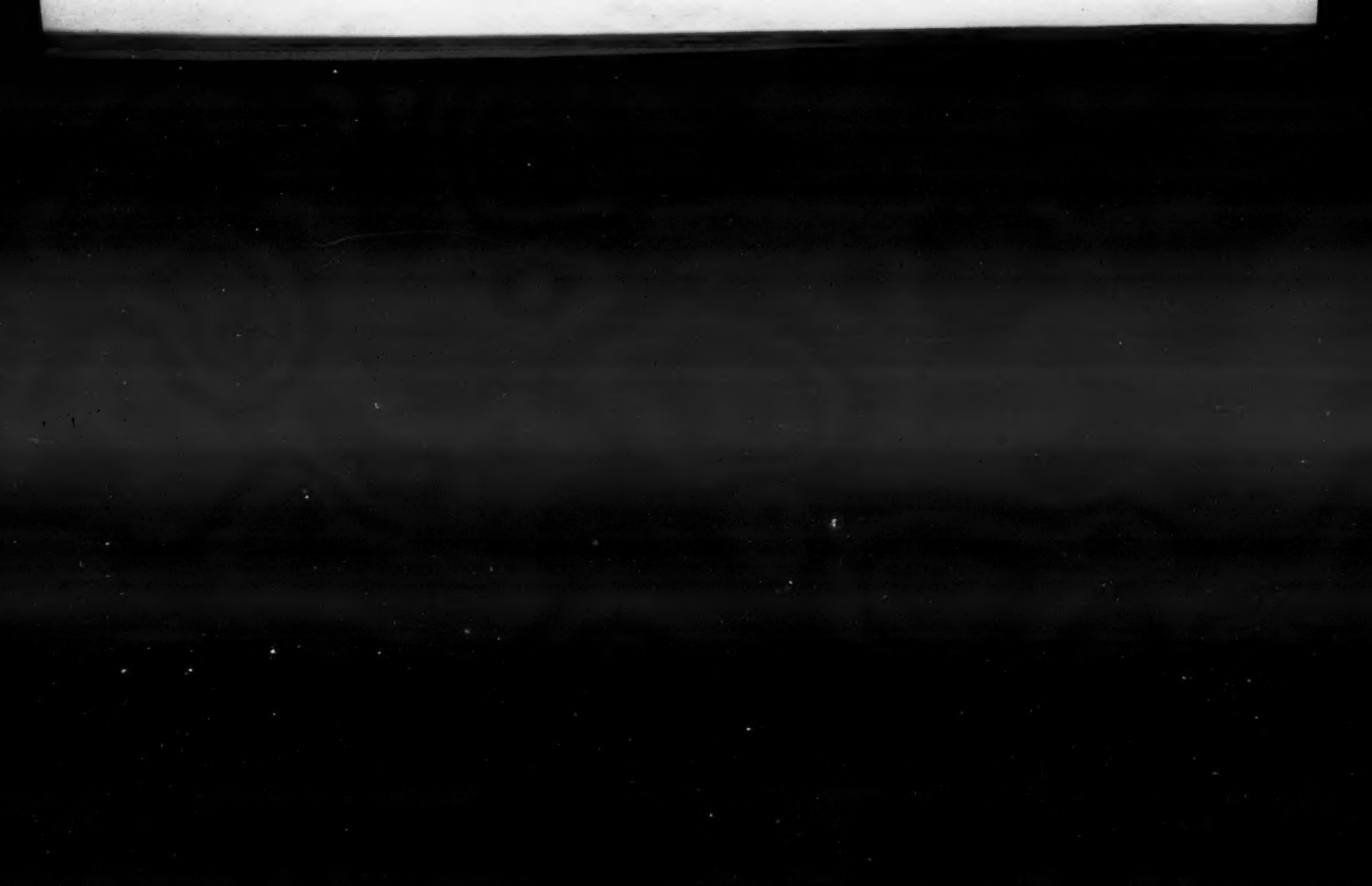

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VOL. V.

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[1] This is the proper title of Article VI.

# THE SOUTHERN REVIEW.

## No. X.

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APRIL, 1869.

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ART. I.—*On Liberty.* By John Stuart Mill. People's Edition. London: Longman, Green, Longman, Roberts, and Green. 1865.

We have, more than once, been reminded of our promise to lay before the readers of the *Southern Review* our own definition of the nature of Liberty; a promise which, by the way, we have neither forgotten, nor intended to neglect. For, as we have said, 'Having examined, so freely, the notions of Mill, and Liéber, and Russell, as to the nature of Liberty, we may be reasonably expected to give our own views on the subject. We should be glad,' it is added, 'to do so in the conclusion of this article, [for July, 1867], if our space were not too limited; for we do not shrink from the severe ordeal of criticism to which we have subjected others. We should, on the contrary, court and covet its most searching scrutiny, as the best possible means to eliminate truth from the mass of error in which it is still embedded. . . There is, indeed, no subject under the sun, in regard to which mankind stand in greater need of clear and distinct knowledge, than the nature of Liberty. A work containing such knowledge is still a *desideratum* in English literature. Hence, no mean cowardice or fear of the critic's lash, shall keep us from the resolute endeavor, at least, to contribute our mite toward so great and desirable a work. Especially since no people on earth are more interested in the dissemination of real

knowledge on this subject, than are the inhabitants of the United States. On the capitol at Washington, there is a bronze statue of Liberty, [more than half Ethiopian in hue;] on which all persons, as well as members of Congress, may freely gaze. But this would give no one an idea of Liberty, any more than poring over the heavy pages of John Stuart Mill, or of Dr. Francis Liéber. The members of Congress should, indeed, inscribe on the pedestal of that statue the words—*To the Unknown Goddess.*'

The above promise has already been partially redeemed. For, in our April issue for 1868, the nature of civil liberty is discussed, with a view to explode certain obstinate fallacies connected with the subject, and open the way to a clear and satisfactory apprehension of this great idol of the modern world. In that discussion, it is shown, unless we are greatly deceived, that the formula of 1787, or rather the great maxim of the past, that 'on entering into society, individuals give up a share of their natural rights, or liberty, in order to secure the rest,' has no foundation in the nature of things. That it is, on the contrary, not a principle of science, but only the creation of political theorists. For, by the organization of society, individuals are, indeed, protected in the enjoyment of all their natural rights; so that Liberty, instead of being abridged, is really introduced and established, by the State. The State is, then, if properly organized, the author and the finisher of our Freedom. These conclusions, so different from those usually adopted, show the necessity of a re-statement of the great problem of society, as well as indicate a more perfect solution of that problem.

A further confirmation of this view, is derived from a study of *The State of Nature*, as it is called; which is considered in an article for July, 1868. In that article, it is shown, that the great boasted liberty of such a state is, in reality, a distorted phantom of the imagination, and not a true form of the passionless reason. Or, in other words, it is there shown, that in a state of nature, as it is called, there is license, not liberty; or ferocity, and not freedom. In such a state, in short, there is violence, anarchy, chaos, and not order, peace, harmony, or *security in the enjoyment of rights.* This, under God, is due to

the State; and this is Liberty. As it is license, and not liberty, which needs the restraint of penal codes and human laws; so the great trouble of society is, not how far the natural freedom, but only how far the natural depravity, of mankind shall be limited and restrained by the edicts of society.

We glorify the State, and we honor its laws. 'The struggle between Liberty and Authority', says Mr. Mill, 'is the most conspicuous feature in the portions of history with which we are earliest familiar, particularly that of Greece, Rome, and England.' Now this struggle, this antagonism, between Liberty and Order, is purely imaginary. Liberty and Order, like twin stars, lend mutual support to each other, and each shines with the borrowed lustre of its fellow, as well as with its own. But despotism is not Order, any more than license is Liberty. Despotism is, on the contrary, inimical to that wholesome public Order, or Authority, which is the source of our social peace and joy, tranquility and rest. It is, indeed, the reign of Authority, of just Government and Laws, which prevents the wrongs, and protects the rights, of all; and thereby ordains Liberty, or 'the secure enjoyment of rights.' The State is, then, the true *Leviathan*, the mortal god which, under the immortal God, holds the flaming sword of justice for the protection of the innocent and the terror of the guilty. Hence, in its origin, in its nature, in its sanctions, and in its effects, it is truly divine.' [Southern Review, for July, 1868.] Having thus opened and prepared the way for the introduction of the idea of Liberty, as well as explained some of its most indispensable conditions, we now proceed to define the thing itself.

M. Guizot, as we have already seen, [in our issue for Jan. 1867,] discredits the attempt to define such complex facts as civilization or freedom. If we repeat here, in part at least, our reply to his objection; this is because the *Southern Review* for 1867, has long been out of print, and cannot be seen by many of our present subscribers. And besides, this reply, by giving the true idea of a 'scientific definition', will enable the reader to judge for himself whether our definition of Liberty be scientific or otherwise, true or false. It is, indeed, in more respects than one, an essential part of the present article. Hence, we must

beg leave to repeat briefly, in this place, the substance of our reply to the above celebrated objection of M. Guizot; especially as it stands directly in the way of our present design, as well as casts discredit on all future attempts to give a 'scientific definition' of the term *freedom*, or *liberty*.

M. Guizot, says Alison, 'is a man of the very highest genius, taking that word in its loftiest acceptation'; and 'if ever the spirit of the Philosophy of History was embodied in a human form, it was in that of M. Guizot.' It is, then, all the more important that, while the authority of his great name is duly respected, and his opinions carefully weighed, his errors should be opposed.

'In the usual general acceptation of terms', says he, 'there will nearly always be found more truth than in the seemingly more precise and rigorous definitions of science. It is common sense which gives to words these popular significations, and common sense is the genius of humanity. The popular signification of a word is formed by degrees, and while the facts it represents are themselves present. As often as a fact comes before us which seems to answer to the signification of a known term, this term is naturally applied to it, its signification gradually extending and enlarging itself, so that at last the various facts and ideas which, from the nature of things, ought to be brought together and embodied in this term, will be found collected and embodied in it. When, on the contrary, the signification of a word is determined by science, it is usually done by one or a very few individuals, who, at the time, are under the influence of some particular fact which has taken possession of their imagination. Thus it comes to pass that scientific definitions are, in general, much narrower, and, on that very account, much less correct, than the popular signification given to words.' He thus repudiates the scientific definition of words, and relies on their popular significations as given by common sense.

'So,' he continues, 'in the investigation of the meaning of the word *civilization* as a fact, by seeking out all the ideas it comprises, according to the common sense of mankind, we shall arrive much nearer to the knowledge of the fact itself than by attempting to give our own scientific definition of it, though

this might at first appear more clear and precise.' Thus, in pursuit of the meaning of the term *civilization*, M. Guizot turns his back on *science*, and appeals 'to common sense', to the 'genius of humanity', for light and knowledge. Now, is this course really sanctioned by science, or by common sense? Or can we escape from the darkness and confusion of the subject, and gain any clearer or more distinct conceptions, by any such vague appeal to any such vague tribunal? If we may judge from the success of M. Guizot, we are bound to answer this question in the negative. For, having interrogated his great oracle 'common sense', he seems to know as little as ever respecting the nature of freedom; as may be easily shown.

'One would suppose, for example, that if any two things on earth should be distinguished from each other, they are human *liberty* and human *depravity*. Such a distinction should, most assuredly, be in every man's mind like the difference between light and darkness. Yet, as experience has shown, it is quite possible for a historian and a philosopher to overlook this distinction, even in pronouncing judgment on the most momentous of questions. M. Guizot, for example, in following his guide 'the popular signification of words,' perpetrates this blunder, and plunges into some of the most wonderful errors ever committed by historian or philosopher. In the great historic struggle 'between liberty and power,' says he, 'the Church has usually ranged itself on the side of despotism.' If so, then this is surely just because the Church has become corrupt, and proved false to her sublime mission to free mankind from the bondage of every corruption, whether internal or external, and restore them to the glorious 'liberty of the sons of God.' But M. Guizot thinks quite otherwise. If the Church has stood forth as the champion of despotism, 'one need not,' says he, 'be much astonished at this, nor charge the clergy with too great a degree of human weakness, nor suppose it a vice peculiar to the Christian religion.' No, none of these things will explain the attitude of the Church, in her unholy alliance with the enemies of God and man. 'There is,' says he, 'a more profound cause.' And strange to say, he finds this more profound cause in the very nature of religion in general, and of

the Christian religion in particular. 'All religion,' says he, 'is a restraint, a power, a government. It comes in the name of a divine law, for the purpose of subduing human nature. It is human liberty, then, with which it chiefly concerns itself; it is human liberty which resists it, and which it wishes to overcome. Such is the enterprise of religion, such is its mission and its hope.' Nothing could be more deplorably untrue. Yet, if the term *depravity* be substituted for the word *liberty*, nothing could be more perfectly true. For Christianity comes, in the name of a divine law, to subdue human *depravity*. It is human *depravity*, then, with which it chiefly concerns itself; it is human *depravity* 'which resists it, and which it wishes to overcome.' Such is the sublime hope and mission of the Christian religion. It wages war with every species of corruption on earth, and especially with every form of despotism. M. Guizot defends the Church at the expense of Christianity; and, writing an apology for the pretended followers of Christ, he indites a libel against the Master himself; making him the natural ally of despotism, and the enemy of freedom. He generously admits, however, that this 'vice' is not 'peculiar to the Christian religion,' but common to all religions!'

It is true, that most 'scientific definitions' of liberty, as they are called, are narrow, one-sided, and utterly inadequate. This is, however, not because they are 'scientific definitions', but just because they are unscientific. 'Done by one or a very few individuals, who, at the time, were under the influence of some particular fact, which had taken possession of the imagination'! Aye, there lies the evil,—done at the time! in the heat of the moment! and under the dominant influence of some particular fact tyrannizing over the imagination! That was not *the time* to define liberty. Nay, there is no particular time for such a work; for it is the work of time itself. As to the 'scientific definitions' of freedom, falsely so called, it is just the business of science to go about with her hammer, and, breaking them all in pieces, to set up the true image of freedom in their stead.

'Done at the time, and under the influence of some particular fact.'! Such a definition is not, as M. Guizot alleges, 'determined by science.' It is the spurious coinage of a false imagi-

nation, and bears not the sacred impress or stamp of science. It is, indeed, the business of science, properly so-called, to emancipate the mind of man from every such misguided and misguiding imagination, and bring it up to the pure region of truth. It is not science, but only the blind votary of science, that sinks under the influence of 'some particular fact.' Science, on the contrary, casts off the fetters of particular facts, and emancipates herself from all one-sided, narrow, and contracted views. Her vision is as free as it is clear. She comprehends all the great facts she deals with, and, above all, the relations of the facts to one another.

The appeal of M. Guizot from science to common sense, is, indeed, highly unphilosophical; since the natural course of knowledge is from the few to the many, not from the many to the few. The loftiest peaks are the first to catch the rising beams of knowledge, and it is often centuries before these descend on the plains and the valleys below. We did not go to mankind, we went to M. Guizot as one of the great teachers of mankind, in quest of light and knowledge respecting the nature of *freedom;* and he gave us only 'the popular signification of the word.'!

No one can, indeed, define the term *freedom*, except those who understand the nature of freedom. But the question as to the nature of freedom, is one of advanced science, and not of popular decision, much less of popular delusion. Hence, if science be not sufficiently advanced to tell what freedom is, the remedy is not an appeal from science to 'common sense', or to 'the genius of humanity', but a still further advance in science itself. For science must toil on, until the nature of freedom be fully comprehended, and clearly revealed, or else mankind must still remain a prey to the infinite legion of misunderstandings, errors, and confusions, by which they have been so long tormented. She must elevate herself, and common sense also, above their present low level, and show the mind of man the glorious image, freedom, as it is in itself, or else the world must still grope in darkness, and madly rush into 'all imaginable excesses.' The long, deep, earnest, energetic search of science, is the only ground of hope.

But is it not wonderful that any man, and still more that the great embodiment of 'the Philosophy of History', should, in this nineteenth century, disparage the teachings of science, as if they were inimical to the dictates of common sense? All that has been done, all the proud victories and achievements of the human mind, are indeed but the work of good sense or science. For science is only good sense cultivated, developed, expanded, and raised above the dead level of common sense into the bright and shining region of eternal truth. Science is, in fact, only common sense emancipated from its distracted condition, and set on high, in order that it may, far above the distorting medium of prejudice and passion, see visions of glory in the great book of God's creation and providence. This is only good sense, and this is science. Or, in other words, science is good sense transfigured by the power of pure thought and the progress of clear ideas. And if common sense is any thing different from this, then we refuse to follow it as an oracle, or to respect its decision. Science is, indeed, the emancipation and the freedom of common sense; and, consequently, in appealing from the former to the latter, M. Guizot prefers the bond-maid to the mistress.

No where, perhaps, in the whole domain of human knowledge, are the kind offices of science more needed than in the reformation of men's notions of freedom or liberty. For it is here that the delusions of common sense have done their worst, and wrought the direst calamities to the human race. If, indeed, we should judge from the last century, we should be justified in the mournful conclusion, that men do not think about liberty at all; that they merely effervesce. Nor is this all; for getting drunk on the '*vinum demonum*', as St. Augustine calls falsehood or fiction, they madly plunge into 'all imaginable excesses', and overwhelm the world with unalterable horrors and calamities. Thus Liberty, so grossly misconceived and frightfully distorted, is even now the false god to whom more human victims are sacrificed, than were ever immolated to appease the wrath of Moloch, or to satiate the bloody maw of any deity of the heathen world. How important, then, that all thinking men concur, if possible, to form a true idea or defini-

tion of Liberty; and thereby declare to all these blind and drunken devotees of Freedom, the goddess whom they so ignorantly worship!

It is evident, that such a definition or image of freedom should contain every essential element and feature of the thing defined. To hold up 'some particular fact' of freedom as if it were the whole, would indeed be as absurd, as unscientific, as to represent 'the human face divine' as all mouth, or all eye, or all nose. The one would no more be a 'scientific definition' of liberty, than the other would be an artistic portrait of the human face. In both cases each and every feature should be exhibited in its true proportion, and in its proper relation to each and every other feature, or the image will be incomplete and unsatisfactory, or deformed and monstrous.

Or if we should undertake to define the solar system, and should only notice the sun without the planets, or any one of the planets without the sun; this would be a most imperfect description. It would be like M. Guizot's 'scientific definitions', far too 'narrow, one-sided and imperfect' to give any real idea or knowledge of the thing defined. The true definition of the solar system must, it is obvious, contain all the bodies belonging to it, in their proper magnitudes, and in their natural relations to each other. In like manner, the true, or really scientific, definition of any complex term, such as *freedom*, which embraces a multitude of facts or ideas in its meaning, must exhibit each of these facts or ideas in its proper position, and in its due relation to all the others. This term, indeed, embraces a system of correlated facts or ideas, and can no more be fairly represented by a single fact or idea, than the solar system could be represented by a single planet, or the human face by a single feature. The great misfortune is, that in most of the attempts to define liberty, the great central sun-like idea is omitted, while some little dark planetary fragment is made to stand for the whole.

In proceeding to define *liberty*, then, we shall endeavor to omit none of 'the various facts and ideas which, from the nature of things, ought to be brought together and embodied in this term.' We shall strive to exhibit them all; not, however, in a

confused, heterogeneous, and chaotic mass, as they usually appear in the crude contents of common sense, or for the most part, in the writings of M. Guizot and other celebrated authors. We shall aim, on the contrary, to define each essential fact or idea, to show its place in the system to which it belongs, and its relation to the other facts and ideas of the same system. This, and nothing less than this, can be called a scientific definition of liberty; unless, indeed, it be the object of science to mislead and deceive by one-sided, partial, and false views of nature, rather than to fix in the mind a clear, full, round, and complete pattern of her divine forms.

The term *freedom* is frequently applied to the human will, in which case it denotes a fact of nature, with which political philosophy *as such*, has nothing to do. Hence it need not be defined in this place. It belongs exclusively to the province of the metaphysician. Blackstone appears to have confounded this fundamental fact of our nature with the idea of natural liberty, when he says that natural liberty was the gift of God to man at his creation, by which he was endowed with the faculty of free-will. The two things are perfectly distinct. The one is a power, inherent and immutable, having been stamped on the soul by God in the act of creation; the other is a contingent fact, and depends on external circumstances for its existence. If there were no human laws, the will would be free; but, as our natural rights could not be enjoyed, there could be no natural liberty, but only violence and wrongs and oppression. The philosophy of history has much to do with the doctrine of free will; but the science of government, or the philosophy of politics, *as such*, deals not with the profound metaphysical abstractions of that abstruse doctrine. On the contrary, it stays at home, in this little planet of ours, with Bacon, and Aristotle, and Montesquieu, and Burke, instead of making the grand tour of the universe with Plato and Cudworth, or Liebnitz and Clarke.

The same term is also employed to signify a moral state or condition; including a deliverance of the *intellect* from the dominion of ignorance and error, of the *heart* from the reign of evil passions and propensities, and of the *will* from the galling

tyranny of vicious habits. The word is used in this sense by the poet, when he says:

> 'He is the freeman whom the truth makes free,
> And all are slaves beside';

and also by the inspired penman in the declaration, that 'where the Spirit of the Lord is, there is Liberty.' It is this threefold freedom of *intellect*, *heart*, and *will*,—this harmonious and perfect development of all the god-like faculties of the soul,—which constitutes 'the glorious Liberty of the sons of God.'

Freedom, in this sense, is not merely a gift; it is, under God, the highest achievement of man. It is the Freedom for which all other freedom exists; and in comparison with which all other freedom is as the small dust of the balance. It is, indeed, the Freedom for which man himself exists, the great end and aim of human life, the final cause of the world, and the glory of the universe. Hence all human laws and institutions, if wisely framed, tend to secure this great, central, sun-like Freedom of the spiritual world. All other freedom, whether of the will or of the body, is a blessing, or a curse, in proportion as it promotes, or retards, this glorious Freedom of Spirit. All other freedom, whether *personal*, *political*, or *civil*, bear to this Freedom the subordinate relation of means to an end, and derive all their value from their relation to this great end, or final cause, of human life and the world.

It is an inattention to this great truth, to this all-important relation of all other kinds of freedom to the moral freedom of the soul, which has engendered so much error and confusion among men. God lays the principal stress on moral freedom, or that, in other words, by which we became like himself in *thought*, in *feeling*, and in *will;* while men, for the most part, in their blind zeal for personal or political liberty, despise and trample under foot the infinitely higher claims of the all-glorious freedom of the spiritual world itself. Hence it is, that in the eyes of would-be reformers, or blind zealots in the cause of freedom, the very wisdom of God itself respecting liberty and slavery is such infinite foolishness. Every law, every institution, every government, and every measure, which hinders, more than it helps, the moral development, or emancipation, of the people

to whom it is applied, is an abomination in the sight of God. On the other hand, every law, institution, government, or measure, which promotes the moral freedom, or progress, of society, is among the means or methods of infinite wisdom for the restoration of a fallen and dilapidated world. All the schemes of men, however grand and imposing, or insignificant and contemptible, in our eyes, should be estimated and valued, not according to their outward appearance, but according to their intrinsic relation to the emancipation of mankind from the dark dominion of 'the world, the flesh, and the devil.' Every thing which answers this end, is good; and any thing which opposes this end, is bad. It should, however, be always borne in mind, that nothing unjust, or immoral, or wrong in itself, can ever answer such an end, or any good purpose whatever.

Political despotism itself is desirable, when, in any case, it serves to promote the moral freedom of man, or the great object for which he exists upon earth. This is, indeed, conceded by the blindest devotees of Freedom; not even excepting Mr. Mill himself. Accordingly, in his work *On Representative Government*, Mr. Mill says: 'A people in a state of savage independence . . . . is incapable of making any progress in civilization *until it has learnt to obey* . . . . A constitution in any degree popular, . . . . would fail to enforce the first lesson which pupils, in this stage of their progress, require, [that is, the lesson of obedience]. Accordingly, the civilization of such tribes, when not the result of juxtaposition with others already civilized, is almost always the work of an *absolute ruler*, deriving his power either from religion or military prowess; very often from foreign arms.' Thus, in the case of savage tribes, political despotism, the most absolute, is deemed indispensable to render them capable of the very first step in civilization, or social progress.

Nay, on the same page of the same work, personal servitude itself, is recommended as the means of promoting the 'freedom' of such tribes. 'Uncivilized races', says he, 'and the bravest and most energetic still more than the rest, are averse to continuous labor of an unexciting kind. Yet all real civilization is at this price; without such labor, neither can the mind be

disciplined into the habits required by civilized society, nor the material world prepared to receive it. There needs a rare concurrence of circumstances, and for that reason often a vast length of time, to reconcile such a people to industry, unless they are for a while compelled to it. *Hence even personal slavery*, by giving a commencement to industrial life, and enforcing it as the exclusive occupation of the most numerous portion of the community, may accelerate the transition to a *better freedom* than that of fighting and rapine.' If, indeed, Mr. Mill had only known how deep, and solid, and permanent, is the foundation of his own apology for 'personal slavery' in the nature of savage tribes, he could scarcely have been so fierce an advocate of the violent emancipation of the blacks of this country, or of the terrible crusade preached by the abolitionists for that purpose. Be this as it may, we have, at least, his own explicit admission, that slavery, is, in certain cases, one of the means or methods of 'freedom' itself.

This was emphatically true in regard to 'the savage tribes' of Africa. By 'personal slavery,' or servitude, the Africans brought to this country were, indeed, delivered from a bondage infinitely more frightful than any the New World has ever seen,—from a bondage to 'the flesh and the devil,' which no words can describe, and which no imagination could possibly conceive, without a careful study of the actual history of such brutalized and debased tribes. We cannot dignify their beastliness with the name of vice, nor their fetichism with the name of idolatry, or atheism. The terms *ignorance* and *superstition* would, indeed, be exceedingly weak, if applied to their gross conceptions of man, and nature, and powers of the invisible world, or to the monstrous diablery growing out of such wonderful misbeliefs and wild absurdities. If, indeed, any 'savage tribes' ever needed the necessary discipline of 'personal slavery,' it was those of the African race. In an introduction to *the Philosophy of the Plan of Salvation*, Professor Stowe, the husband of Mrs. Harriet Beecher Stowe, declared that God, in order to prepare his chosen people for their mission, sent them into slavery for four hundred years. May we not suppose, then, that if the African race has any mission upon earth, a portion

of them was sent into American servitude, in order to prepare them for that mission? The above learned Professor of Theology would, no doubt, have answered this question in the affirmative, if *Uncle Tom's Cabin* had not taken the place of the Bible in his affections. As it was, he struck out the above passage from his introduction to the work referred to, and the philosophy of J. J. Rousseau rooted out of his mind *The Philosophy of the Plan of Salvation.* It is, however, some consolation to reflect, that the greatest mind New England has ever produced, as well as the most profound student of the Bible, wrote a treatise to show that slavery was, in its *effects* and in its *providential design*, a grand missionary scheme for the conversion of the heathen to the Christian religion. On precisely the same ground it is, that great thinkers and biblical students have, in past ages, justified the institution of slavery, and the eternal word of God in which that institution is sanctioned as one of the methods of mitigating the bondage of 'savage tribes' and raising them in the scale of Freedom. That is to say, the great thinkers and biblical students of past ages, before the world ran mad on the subject of slavery. During the present age, indeed, there has been much froth, and foam, and fury, on the subject of freedom and slavery, and but little deep patient, or sober thought. Hence, in this age, the loud, vehement cry for 'an anti-slavery God and an anti-slavery Bible', from the would-be reformers of the world, who, in their infinite conceit of wisdom, exalt themselves 'above all that is called God.' These men were foreseen and perfectly described, by the inspired penmen, nearly two thousand years ago, in the following words: 'Let as many servants (i. e. δουλοι, slaves,) as are under the yoke count their masters worthy of all honor, that the name of God and his doctrine be not blasphemed. And they that have believing masters, let them not despise them, because they are brethren; but rather do them service, because they are faithful and beloved, partakers of the benefit. *These things teach and exhort. If any man teach otherwise*, and consent not to wholesome words, even the words of our Lord Jesus Christ, and to the doctrine which is according to godliness, *he is proud, knowing nothing, but doting about questions and*

*strifes of words, whereof cometh envy, strife, railings, evil surmisings, perverse disputings of men of corrupt minds, and destitute of the truth, supposing that gain is godliness:* from such withdraw thyself.' But instead of permitting us to withdraw ourselves from them, they pursued us with fire, and sword, and desolation, and misery, and death, till they brought us back, not into the Union, but only into the remorseless clutches of their power. All this was done in the name of Freedom.

Slavery had, it must be admitted, achieved much for the African race. In their native land, for example, the ages have seen forty millions of this race in bondage to ignorant, cruel, and brutal masters, without the least hope of mental or moral improvement. In America, we have seen some four millions of the same race under the control of humane and Christian masters, advancing, continually, from barbarism and bondage toward the goal of civilization and freedom. We do not believe, indeed, that they had become equal to the whites of this country, as their too partial admirers have alleged; for, however beneficent the institution of slavery in its application to such tribes, it did not make them in two centuries, (only half the period for which God sent his chosen people into bondage,) quite equal to those who had experienced fifteen centuries of discipline, training, and progress in civilization and freedom. But, though they were not equal to the white men of America, they were incomparably superior to the savage tribes of their native wilds and jungles. In this imperfect world of ours, civilization and barbarism, liberty and slavery, are, like light and darkness, *relative* only, and not absolute. The dark spots on the sun are, as astronomers tell us, far brighter than the most intense light ever created by human art. Hence, if the insufferably bright light of the argand lamp itself, be held between the eye of the observer and one of the sun's spots, it will be made to appear dark by the superior effulgence of the spot; just as the spot itself appears dark in the fiercer flame of the adjacent portions of the sun's disc. In like manner, the civilization or freedom of the African race in this country, which seems so dark on the blazing disc of American civilization, becomes, if turned and viewed on the back-ground of African barbarism and debase-

ment, bright, and cheering, and beautiful to behold. It forms, indeed, the only bright spot in the history of the African race. If, then, we are not greatly deceived; nay, if all ages except this have not been greatly deceived; there was a profound wisdom in the injunction of God to his chosen people, commanding them to buy their 'bondmen and bondmaids' of the heathen nations round about them. Even Moses Stuart, a learned divine of Massachusetts, who had devoted a long and laborious life to the study of the Scriptures, was compelled, in spite of his aversion to slavery, to recognize the wisdom of the injunction to 'buy bondmen and bondmaids' of the heathen that were round about them. For this decision, he assigns the two following reasons: First, 'the heathen master possessed the power of life and death, of scourging or imprisoning, or putting to excessive toil, even to any extent that he pleased. Not so the Hebrews. *Humanity* pleaded there for the protection of the fugitive. The second and most important consideration was, that only among the Hebrews could the fugitive slave [or bondman] come to the knowledge and worship of the only living and true God.' Thus it was, and thus it ever has been, the office of slavery, when properly applied, to promote the moral emancipation and freedom of its patients. The two reasons above assigned, it is scarcely necessary to remark, applied with peculiar force and emphasis to the past servitude of Africans in this country. But the people did not see this. On the contrary, they neither considered the reasons of the institution, nor the application of those reasons to the 'savage tribes' of Africa, before they set to work, in the name of Freedom, to turn the world up-side-down. Having become, in their own conceit, wiser than all past ages, and even wiser than God himself, they would not condescend to weigh his words, or to consider his reasons. Hence it is that, in their blindness, they have laid the temple of Freedom, so carefully planned and erected by the architects of 1787, in melancholy and appalling fragments on all sides around us. Such is the misery and the madness of man; with whom the wisdom of God itself is foolishness.

Earl Russell, a truly representative abolitionist, expected the most glorious results to flow from the forced emancipation and

freedom of the slaves of the South. Hence, in a speech, delivered on the occasion of his installation as Rector of the University of Aberdeen, he exulted, as he said, in beholding, through all the darkness and tempests of this country, one bright and beautiful vista into its glorious future; the vista, namely, opened by the sudden emancipation of four millions of blacks from personal servitude. But if this was anything more than a flight of fancy, or brilliant outburst of the fashionable fanaticism of the time, there was, at least, no principle in the philosophy of the noble Earl, by which its rationality could be vindicated. For in the very same speech, he laid it down as a law of nature, illustrated by all history, that if two different and independent races occupy the same territory, the inferior race is doomed to disappear before the superior, and become extinct. If viewed, then, in the light of history, or in the light of his own principles, 'the bright and beautiful vista' of the noble Earl, could have shown him, not the freedom, but only the utter extermination, of the four millions of freed blacks of the South. How could his philanthropy, then, exult or rejoice in the contemplation of such an event? Was his love of freedom the hatred of the freed-men? Did he really wish to see them disappear from the face of the earth? The simple truth seems to be, that, in the blindness of his fanatical zeal for freedom, he bestowed little or no real thought at all on the subject of the future destiny of the negro. Whether four millions of his fellow-men should finally reach the goal of freedom, or disappear forever in the abyss of annihilation, was a question far too practical to engage the attention of his abstract philanthropy. Hence, without serious reflection, he favored measures which, according to his own principles, doomed four millions of living men to destruction, and blotted out the only bright prospect in the whole history of the African race. All this, too, was done in the name of Freedom.

Personal and civil liberty, then, stand related to moral freedom, as means to an end. How often, in this world of fanatical reformers, is the end sacrificed to the means! How often is the moral freedom of mankind,—ay, and vast hecatombs of human beings too, sacrificed in the mad pursuit of personal or

civil freedom! If, on the contrary, we would not sacrifice the end to the means; there are cases, and very important ones too, in which civil despotism, or even personal servitude, should be adopted, as a provisional method, to effect a transition from the bondage of savage tribes to the freedom of civilized men; or, in other words, to promote the moral freedom of mankind, on which all other kinds of freedom, whether personal, political, or civil, depend, even as the planets depend on the sun.

The Church, however, rather than the State, is ordained to promote, as far as possible, the moral freedom of mankind. But the relation of the Church and the State to each other, and of each to the moral freedom, or regeneration, of the world, present, for our consideration, some of the most profoundly interesting problems that could possibly engage the attention of man. This is not the place, however, to discuss any of these problems. We shall only observe, in passing, that although human laws should, in certain stages of human progress, be framed without any direct reference to the moral freedom of society, they should never be allowed to interfere with its claims. That is to say, if we would really and clearly understand the complex and profoundly complicated subject of human liberty, we must view the whole system of its correlative facts from the central and sun-like idea of moral Freedom, instead of losing ourselves, with modern reformers, in some little, dark, planetary notion of freedom, from which every thing is seen amiss. It was, indeed, for the advancement of moral freedom, that man was created, and endowed with the faculty of free-will; and it is for the promotion, and for the preservation, of this freedom, that both the Church and the State are ordained of God; the one, as the organ by which the life of society is replenished from within, and the other, as the body by which it is protected against destroying influences from without. Or, to change the metaphor, the one as the channel for imparting life and growth to the kernel, or the budding flower, of society, and the other, as the shell, or the leafy envelope, to shield its life and growth from the manifold external causes of destruction.

But though civil liberty is a means to an end, that is, to moral liberty, this is no reason why it should be lightly es-

teemed. It is, indeed, among the greatest of earthly blessings; and should be extended to all men as far as is consistent with the higher interests of their moral freedom. Civil liberty is, in its cause, the protection which good government and laws confer on the governed; and it is, in itself, the secure enjoyment of natural rights under and by virtue of that protection. Hence it consists of two parts: first, protection against the infliction of positive wrong; and, secondly, against the omission of what is prescribed by the law of nature, or, in other words, by the moral law of the world.

The celebrated word of Sieyes, 'You seek to be free, and yet you know not how to be just,' recognizes the relation between freedom and justice, without pointing out, or defining, that obscure relation. It is this: By justice good laws and governments are ordained; and by good laws and governments, freedom is introduced and established. Hence, without justice, as the fountain of good laws and government, there is no such thing as freedom or *the secure enjoyment of rights.*

Civil liberty is, then, under good laws, the secure enjoyment of our natural rights. From the necessary imperfection and limits of all human laws, it is impossible for them to protect us in the enjoyment of all our natural rights. Hence, as we have shown, [*Southern Review* for April, 1868, Art. I.] civil liberty does not cover, with the broad shield of its protection, the whole ground of natural rights. But in so far as it does go, it proceeds on the principle of the protection of natural rights, either against some act of omission or commission, and never requires a surrender or sacrifice of them. This ground is, in spite of his general doctrine to the contrary, assumed by Burke himself. For, though he contends that when we enter into society we put all our natural rights at the disposal of the governing power; this is only when he is engaged in controversy with the infidel philosopher of France. He no sooner lays aside the partizan, and puts on the philosopher, than he gives utterance to the great truth for which we here contend. 'Every body,' says he, 'is satisfied that a conservation and *secure enjoyment of our natural rights*, is the great end and ultimate purpose of civil society; and that therefore all forms

whatsoever of government are only good as they are subservient to that purpose, to which they are entirely subordinate.'(1) Here, then, is the great truth clearly announced, as self-evident and satisfactory to every one, that good government is, not the surrender or sacrifice of natural rights, but only and always our protection in *the secure enjoyment of them*, which is the definition of *civil liberty*.

The philosophers of the French revolution held two doctrines: First, that 'civil government is instituted for the protection of rights;' and, secondly, that 'all men have the same or equal rights.' The first is the strong, and the last is the weak, point of their philosophy. Sir James Mackintosh, in his *Vindicæ Gallicæ*, unfortunately embraced both doctrines—the false and the true. Hence he was necessarily doomed to self-contradiction. For, if we assume with him, that 'all men have the same or equal rights;' it necessarily follows, that it is impossible to organize society, or to establish public order, without a surrender or sacrifice of some of these rights. Hence, Sir James was compelled to adopt the notion of such a partial surrender of rights. But, as Mr. Burke says, 'if we may be required to surrender a portion of our rights,' why not all? If we sacrifice a part of our rights, does not the amount sacrificed cease to be a question of principle, and become one of 'convenience' merely? Most assuredly it does. But the question is, do we sacrifice a part? This has never been shown, [*Southern Review* for April, 1868], and until it is, the existence of such a sacrifice of rights should not be asserted.

Burke attacked the strong point in the doctrine of the French philosophers, that 'civil liberty is the protection of all our rights,' and he failed to examine its weak part, that 'all men have the same or equal rights.' If, on the contrary, he had sufficiently considered the nature, the ground, and the limitations of human rights, he must have seen that all men are very far from having the same rights; or in other words, if he had refuted the error of his opponents, he would have been under no necessity of denying the truth they had asserted only to re-affirm it again; and thereby contradict himself. In like

(1) Burke's Works, Vol. III, p. 265.

manner, if Sir James Mackintosh had not embraced the same error, he might have steadily and consistently held the great truth which he sometimes maintained. But as it was, he deserts the truth which he had advocated, that 'civil government is a protection of rights,' and which Burke attacks only to re-assert as a doctrine with which 'every body is satisfied.'

Every body is, or should be, indeed, satisfied with the doctrine, that civil government is instituted to secure the governed in the enjoyment of their rights. But, then, all men have not 'the same or equal rights.' One man, for example, who has the capacity to govern himself, or to take care of his own interests, has the right to do so. Hence, it would be an outrage to place him, or his interests, under the control of another. On the other hand, the child, or the man who has not the capacity to take care of himself, or his interests, has a sacred right to the guidance and control of those who are wiser, and better, and stronger than himself. A more anarchic maxim, or wild disorganizing doctrine, it would be difficult to conceive, than that which asserts that 'all men have equal rights.' It is indeed big with a thousand revolutions, as terrible and as bloody as that which desolated France in 1789, or America in 1861.

As civil liberty is subordinate to moral; so is 'political liberty' subordinate to civil. Civil liberty is, in fact, the immediate end for which the State exists; and 'political liberty,' as it is called, is one of the means by which that end is secured. Indeed, if we examine the nature of the thing which is called 'political liberty,' we shall find that it is merely a power, and no part of liberty, properly so called. It is important to bear in mind this subordination in the order of things, this gradation and relation in the complex facts, or fictions, of freedom, if we would avoid the darkness and confusion, the misunderstandings and errors, by which the frame of society has been so often unhinged, and a wild deluge of calamities let loose on a guilty world.

In the institution of civil liberty, it is necessary to protect the rights of man, not only against individuals and masses, but also against the very government introduced for their protection.

Hence, the people are admitted to a share of power in every free government, in order to enable them to protect themselves against the abuses and oppressions of those by whom its co-ordinate powers are possessed. In Great Britain, for example, the people, by their representatives in the House of Commons, hold such a check on the other branches of the Government as to secure themselves against the enactment of unjust and oppressive laws. This power of the people is called 'political liberty;' and no one is supposed to enjoy this liberty, who is not allowed to vote for representatives in Parliament.

But no greater error can be committed, than to confound this power of the people, or this guarantee of civil liberty, with the idea of liberty itself. Though essential to the existence of liberty, it is no more liberty itself than air is the fire, or the life, to whose preservation it is indispensably necessary. It is evident, that if good laws be made, and civil liberty be enjoyed under their protection, it matters but little by whom they are made. It is not necessary that they should be made by the people themselves, or by their representatives, except so far as may be requisite to secure good ones. It would, indeed, be a great blessing if the people could enjoy all the advantages of good laws, without the necessity of devoting their time and labor to their enactment. But they can not have these advantages without a share of power to protect themselves against the passage of unjust and oppressive laws. If they have sufficient power for this purpose, it is all they need, and more would tend to defeat the end of its existence. But this obvious dictate of plain, practical sense, is often lost sight of, and the best interests of society sacrificed, in the pursuit of imaginary rights, or of power under the guise and name of 'political liberty.' In America, this power of the people, having its roots in universal suffrage, was first transformed from a guarantee of liberty into an element of liberty itself; and then, like Aaron's rod, this element was made to swallow up all the others; becoming the despotism of mere numbers and brute force.

'In every State,' says Earl Russell, 'where either the monarch, the aristocracy, or the multitude, is allowed too much power, civil liberty is incomplete.' Here it is called 'the power of the

multitude;' and is regarded as a safeguard, or guarantee, against the power of the monarch, and the aristocracy. This is well said. It is part and parcel of that good sense, which is the grand inheritance of the English statesman. But in the definition of his Lordship, this power of the people ceases to be one of the means by which liberty is secured, and becomes an element of liberty itself. 'The greatest advantages,' says he, 'which a community can procure itself, by uniting under one government, may perhaps be comprehended under the titles of civil liberty, personal liberty, and political liberty.' 'By political liberty,' says he, 'I mean the acknowledged right of the people to control their government, or to take a share in it.' Now which turn of this alternative shall we take? If we say, 'the acknowledged right of the people to *control* their government,' this is an American idea. That is to say, it is the controlling, but uncontrolled, sovereignty of the multitude, which, in America, has not only rendered 'civil liberty incomplete,' but entirely banished it from the land. If the people be set above the government, if their right to control it be acknowledged and the power given them to execute this right; then will it soon be found, that 'the multitude have too much power,' and that it needs to be controlled as well as to control. The truth is, when Earl Russell speaks of the balance of power between the monarch, the aristocracy, and the multitude, as the guarantee of civil liberty, we behold the hereditary good sense of the Englishman. But when he calls this power of the people their 'political liberty,' and identifies it with their 'acknowledged right to control their government,' the good sense of the Englishman disappears, and his mind is darkened with the vague and visionary conceptions of the political dreamer. The great fact of freedom is then eclipsed by the fiction of an imaginary right.

On the other hand, if we say, 'the acknowledged right of the people to take a share in their government,' this is a truly English idea. It admits that the people are not absolutely sovereign, and need to be governed as well as to govern. But the question at the bottom of all this is,—Is this share in their government the *power* of the people, or is it their *right and liberty?* or, in other words, is it an external arrangement of

expediency, or is it an inherent individual right? The people, no doubt, have a right to a share of power in their own government. For, as Earl Russell truly says, 'the only efficient remedy against oppression is for a people to retain a share of that supreme power in their own possession.' But while they have a right to this power as a remedy against oppression, they have an equal right to protection against their own power by the powers of the monarch and of the aristocracy; or, in one word, to that balance of power which is essential to the existence of civil liberty. They have no other, or greater right to their share of power in the government than they have to the existence and protection of the other powers of the government. In fact, the one power is no more a part of the Liberty of the people than the other; and there is no reason why the one should be dignified with the high sounding name of political liberty to the exclusion of the others. If this were all, however, we should say nothing; inasmuch as we abhor all controversies about mere words. But our author proceeds to say: this power of the people 'is called political Liberty. And what is called a love of Liberty means, the wish that a man has to have a voice in the disposal of his own property, and in the formation of the laws by which his natural freedom is to be restrained. It is a passion inspired, as Sidney truly says, by Nature herself.' Now passing by the supposition, or hypothesis, that natural freedom is restrained by laws, (an error already refuted in our pages,) let us notice the assumption, that the natural wish of every man to take part in the laws by which he is governed, is founded in *a natural right.* This fatal confusion of the desire of power in the individual with the love of liberty, with the idea of natural right, points and leads directly to universal suffrage,—the broad and beaten road to political perdition. If the wish, the desire to take part in making the laws have its roots in nature, or in natural rights; then to deprive any man of its enjoyment is just so much slavery. If this desire is love of liberty, then the thing desired is liberty, and to deprive any one of it, is oppression. This is the opinion, the favorite dogma, of Northern politicians. 'A statesman, or founder of States,' says Mr. Seward, 'should

adopt as an axiom,' the declaration, 'that all men are created equal,' and consequently should 'have equal rights in society.' Hence, he draws the conclusion, 'we of New York are guilty of slavery still by withholding *the right of suffrage* from the race we have emancipated.' In like manner, Mr. Chase declared in the Senate of the United States, that the great and all-important democratic principle is an 'equality of natural rights, guaranteed and secured to all by the laws of a just, popular government. For one [he continues] I desire to see that principle, [a perfect equality of natural rights,] applied to every subject of legislation, no matter what that subject may be.' He calls this great principle an 'element of liberty.' By such anarchic maxims it was, that the leaders of the Northern multitude opened, in the name of Freedom, the flood-gates of radicalism, revolution, and ruin.

The power of the people is first called their liberty, is first regarded as the inherent right of every man, because 'all men are created free and equal'; and then this natural right is pushed to its consequences, regardless of all good sense, of all practical wisdom, of all true statesmanship. Thus it is that the power of the people, 'the only efficient remedy against oppression', becomes worse than the evil. The end is sacrificed to the means—civil liberty disappears beneath the shadow of political liberty, as it is called, and the masses rule with despotic, lawless sway. All the checks of the Constitution, by which its framers hoped to restrain the tyranny of the multitude, give way, leaving only the naked and frightful dominion of the absolutely free majority. The free majority? No! the absolutely fierce and licentious majority.

Earl Russell, in his *History of the Constitution and Government of England*, spake wisely when he said: 'In every State, where the monarch, the aristocracy, or the multitude, is allowed too much power, civil liberty is incomplete', (p. 86.) But he utterly loses all his hereditary wisdom out of him, when, in the same work, he declares that 'political liberty', or 'the power of the multitude', 'should be allowed to exist in as great a degree as possible.' It cannot be too great. It may open its mouth, and cry, like the horse-leach, give! give! But still it

cannot have too much. Make it as great as possible. Thus, while the noble Earl himself pursues all the little by-paths, and crooked ways, of the petty politician; he sends the great people down the broad road of universal suffrage to destruction. When the final plunge comes, as come it must, the astonished universe will hear again, as it so lately heard on this side of the Atlantic, the roaring thunders and wild rage of the bottomless pit of radicalism. And all this, too, will be done in the name of Freedom. How tremendous, indeed, are the bloody sacrifices to that unknown Goddess!

Let us briefly state, in conclusion, the results of the preceding analysis and discussion. Civil liberty is the direct object or aim of human legislation; at least in the present stage of human progress, or development. But yet, in such legislation, the claims of moral liberty should never be ignored or neglected. For moral liberty is, in nature and in kind, higher and nobler than even civil liberty. It is, in a word, the emancipation of the mind *of the man himself* from ignorance, error, vice—from all manner of imperfection and evil—and his restoration to the image of his Maker. The Christian religion has for its object the development of this kind of freedom, or liberty. The State, on the other hand, has the creation and perfection of civil liberty, *or the secure enjoyment of rights*, for its great end and aim. But, in the prosecution of this great end, the State should never forget the higher claims of moral freedom, nor fail to promote them as far as possible. The State should never disregard, or violate, the principles and conditions on which moral freedom depends; but, on the contrary, should aid that freedom in all possible ways, even if necessary or expedient, by the use of personal servitude, or civil despotism itself. This higher knowledge of moral freedom is, indeed, as essential to the perfection of human legislation in its efforts to establish civil freedom, as a knowledge of the stars is to a correct survey of the earth, or a satisfactory view of the planet on which we dwell.

The Roman lawyers, as we have seen, viewed civil liberty as merely 'the power to do what the laws permit.' They had no higher views than this; because they knew no higher object

than the State. With them, the State was every thing, and the individual nothing. Or, at least, all his rights were determined by the State, and not by the word of God. This, having brought an immortality of life to light, invested the individual man with an infinite value, solemnity, and grandeur, by the side of which all interests that knew a period sink into utter insignificance. Along with this sublime revelation or disclosure, there was, at the same time, necessarily introduced 'the doctrine of natural rights'; the most dangerous, because the most exciting and the most easily misconceived, doctrine, that ever inflamed the brain of man. The adequate analysis and discussion of this doctrine, is still a *desideratum* in the political literature of the world. If, in the discussions of this paper, or of preceding papers, only one ray of light has been thrown on the great doctrine of rights; then have our poor labors been more than rewarded. But not until that great doctrine shall be more fully explored, analyzed, and discussed, can the true image of Liberty be constructed by the human mind, and erected on a perfectly clear, satisfactory, and solid basis.

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ART. II.—*Geographiches Jahrbuch.* II Band. Gotha. Justus Perthes. 1868.

When God created man in his own image and blessed him, He said: Be fruitful and multiply, and replenish the earth and subdue it. This command has ever since moved man, age after age, to go forth and examine his wide domain. Thousands of years have rolled by, and he has, as yet, seen only a comparatively small portion of the globe thus handed over to him by the Creator. But every year adds to his knowledge; new lands are discovered and new brethren become known to him; new means of communication are opened and new sources of well-being placed in his power. The Germans, admirable com-

pilers as they are in all departments of knowledge, have begun to record the increase of information as to our globe, and the above excellent work contains a vast amount of useful and interesting matter. It is overwhelming, however, in its massiveness, and is serviceable only for purposes of reference. As our countrymen are growing more and more into genuine cosmopolites, and as such claim, first and foremost, possession of the great domain, we thought it not amiss to extract from the enormous mass of information accumulated in the two volumes of the above mentioned annual and from other similar works, a brief account of the most recent journeys undertaken for the purpose of extending our knowledge of the globe.

If it has been correctly stated that one-fifteenth part of the earth is, as yet, utterly unknown to us, and the mystery shrouding it is still so great that we are not even able to draw the line between land and sea, we must not forget that this vast *Terra Incognita* includes the Polar Regions. The Arctic Zone, irresistibly attractive in spite of the many victims it has already destroyed, has of late been sought more eagerly than ever; although political commotions in Europe and with us, have prevented our country and England from sending out large expeditions. Captain Sherard Osborn, famous by his exploits and his undaunted perseverance, proposed to reach the pole on sleds from Baffin's Bay by the left shore of Smith's Sound and Kennedy's Channel, but the failure of Whymper, well known by his successful ascent of the Wetterhorn, has induced him to postpone the enterprise. Whymper attempted in 1867, in company with the experienced naturalist, Brown, to travel in sleds across the almost unbroken ice, which covers Greenland in summer as well as in winter, but he encountered, unfortunately, the mildest weather ever known in the Arctic regions, and found impassable rivers and lakes of molten snow, which prevented his progress.

The great geographer of Germany, Dr. Petermann, started in May, 1868, a small yacht, under Koldervey, for the East coast of Greenland, in order to explore those regions beyond the point where Scoresby and Clavering had ended their labors. This expedition, also, was foiled by immense masses of ice, and

was attended with no other success than that of having penetrated to the 81° 5′ N. Lat. the highest point in northern latitude ever reached by a vessel.

At the same time an attempt was proposed by a Frenchman, G. Lambert, to pass through Behring's Straits into the Polar basin. He appealed to the public for contributions, and received from the Emperor at once 50,000 francs, but does not intend to sail until the whole requisite sum of $120,000 is in hand; so as 'to make the expedition worthy of the greatness of France.' Even in Sweden, the poorest of European states, new efforts have been made to provide the means for another effort to examine the Archipelago of Spitzbergen, and the two learned Professors, Nordenskjöld and Lilliehöök, were sent, with the aid of their government, which furnished a steamer, and of the city of Gottenburg, which provided the money, on their bold enterprise to reach the Arctic from that direction. They have returned with valuable information, but without having achieved the great end of their voyage.

While men of science everywhere deplored these failures, news was suddenly brought that daring whalers from our own shores had succeeded in finding again, a land which had been first discovered by Kellett in 1849, to the northwest of Behring's Straits, and then lost again, so that its very existence was doubted. Capt. Thomas Long, in command of the bark Nile, saw—according to his report published in the Pacific Commercial Advertiser of Honolulu—on the evening of the 14th August, 1867—land, and, on the following morning, approached within 18 nautical miles of it. He was enabled to make careful observations, and found himself in 70° 46′ N. Lat. and 178° 30′ E. Long. The lower parts of the land were free from ice and looked green as if they were covered with vegetation. The space between the ship and the coast, however, was filled with drift ice, and as there were no whales in sight, the captain did not feel himself justified in exposing his vessel to the great danger it would have incurred in an attempt to go nearer to the land. He followed the coast for two days longer, always keeping it close in sight, and, at times, approaching it as near as 15 miles; on the third day he saw a mountain,

apparently an extinct volcano, and, by rough measurement, 2,480 feet high. The south-eastern cape he called Cape Hawaii, and from there he saw the coast and a lofty chain of mountains stretch northward as far as the eye could reach. From all appearances, he judged the land to be inhabited, since there were large numbers of walrus in the neighborhood, and the country looked much greener than the coast of the continent. To the west of Cape Jakar, on the Siberian coast, he observed another cape of most peculiar appearance. The summit and the sides were covered with countless pillars, some upright and others prostrate, some resembling pyramids and others like obelisks. They were scattered over the surface, lying in groups of 15 or 20, and separated from each other by hundreds of yards. Another whaling captain, Phillips, of the Monticello, joined him here and called his attention to a large black substance on the slope of a hill. They examined it carefully with their glasses, and came to the conclusion, that it was coal, and evidently used by the inhabitants. He named the re-discovered land, Wrangel's Land, in reverent acknowledgment of the man who had spent three years in these inhospitable regions and was probably the first to declare boldly in favor of the existence of an open Polar Sea. The western cape was called Cape Thomas, after the man who first sighted it from the masthead.

Master G. W. Raynor, of the ship Reindeer, reports to the same paper, that the land usually called Plover's Island, an extensive land with high summits, had been thoroughly examined by him in the summer of 1867, and proved to be a continuous continent extending as far as the 72° N. Lat. He sailed three times all along the south and east coast, and had no idea that there was water beyond, so as to make them islands. Capt. Bliven, finally, was at the same time beating about near Herald's Island, at a distance of about 80 miles from the south-eastern cape of Wrangel's Land, and saw the mountains extend towards the north as far as the eye could reach. He had no doubt, that an open passage existed along this coast, which would finally lead into an open Polar Sea. All the informants agree as to the unusually favorable charac-

ter of the summer of 1867, both on account of the clear weather that prevailed and the remarkably small masses of ice in the Arctic waters. It is all the more to be regretted that so favorable an opportunity should have been allowed to pass unimproved.

The second great mystery of our globe is, beyond doubt, the interior of Africa, and here also some progress has been made during the last three years. The most important discoveries—Dr. Livingston's report has not reached us—were made by a German explorer, Gerhard Rohlf, who failed in his effort to travel through the whole of the Eastern Sahara and thus to reach Waday, a land well known but not yet visited by any European; but, on the other hand, he succeeded (the first traveller who did so) in traversing the continent from the Mediterranean Sea to the coast of Guinea. He had proved his courage and his unequalled tact in former journeys, during which he explored the whole of the Maroccan Sahara, crossed the Atlas and penetrated through Mohammedan tribes full of bitterest hostility against Christians, to the oasis of Tuat, in Central Africa. His magnificent work on the results of his perilous travels, has not yet been published, but some of the fruits of his labor have become known. Thus he has established, beyond doubt, that there are two transition zones between the Sahara and the Soudan, a vast fertile plain under 16° N. Lat., and a Mimosa forest which extends from Belkashifari to the Tsad, forming a belt of dense wood so broad, that it took several days' journey to traverse it, and probably stretching through the whole of Northern Africa along the line of the Soudan. The forest stands upon soil which has evidently been a desert; it is now rich humus, but not the smallest pebble can be found in its vast breadth, exactly as on the great plain of Hindostan. Another fact of which he became convinced on the spot, is the gradual extension of the fertile soil northward, so as to diminish the Saharas. The great contrast between the two zones, the Sahara and the Soudan, he ascribes exclusively to the influence of the prevailing winds, and believes that as long as the north-easterly tradewind comes as a dry wind, from Asia to Africa, the Sahara must

remain essentially in its present shape. To the south of its limits, on the other hand, there blows for many months a south-westerly wind, known as the West African Monsoon; it comes from the coast of Guinea and is laden with moisture; hence it brings fertility as far as it reaches, and marks the line of the Desert southward. Nor are his suggestions as to trade and commerce with the interior less important, especially as his early training in Bremen had fitted him well for such purposes. He urges strenuously the opening of a trade with Bornoo from the coast of Guinea, on the ground, that the country levies no tolls or customs of any kind, while yet the transport on the usual road through Tripoli and the Sahara is too expensive for Europeans to enable them to compete with the Arabs and the Berbers. The proposed road is up the Niger and Benue by water, and then by land for about 300 miles to Kuka, a journey which would be little expensive and free from all danger. His main merit lies, however, in his thorough knowledge of the Mohammedan African; he knows the Arab, the Berber, and the Tibbooan thoroughly, and gives most interesting accounts of their national peculiarities. Every now and then we gain thus a startling insight into the mind of these barbarous races. Thus he tells us of the Tibbooans, that they have largely preserved their independence under despotic rulers by requiring each new king, when he succeeds his father, to distribute all his property and thus render himself unable to oppress his people! Their Sultans are only judges in peace and leaders in war; they can neither levy taxes nor dispose of the lives of their subjects. Strangely enough they put blacksmiths under the ban; no Tibbooan would eat with one of that useful craft from the same dish or sleep with him under the same roof. To call a man a smith is a mortal offence. But not unlike the manner in which executioners were treated in the middle ages, here also contempt and a peculiar reverence go hand in hand. To beat or to kill a smith, is a heinous crime; the decision of a blacksmith's wife is an oracle, and when physician and faki alike are helpless by the sick-bed, the sword-maker is called in as a last resort. They profess Mohammedanism, but comply only externally with the laws of the Islam; as wives are more

highly esteemed among them than elsewhere, the missionaries try to gain an influence through them; the schools are filled with girls rather than boys, and, after the manner of Southern freedwomen, the Tibbooan lady parades all day long with her slate under her arm, to show that she is a scribe. The Arabic is their common language, but their knowledge of it very limited. The slave trade is here as flourishing as elsewhere in Africa, having received a new impetus from the inability to export as heretofore; and in Borneo even the subjects of the Sultan may be seized at any moment to be sold as slaves for his benefit. Rohlf's topographical labors are invaluable and furnish the most important additions to our knowledge of Central Africa, since the admirable work of Barth was published. He has recorded accurately the all-important route from Moorzook by way of Bilma to Kooka, and to the south-west of the latter city he has trod upon entirely new soil. His visit to Tibesti, one of the principal Tibboo countries of the Eastern Sahara, was all the more fruitful, as he was the first European who had reached that rich and fertile country.

A French expedition has likewise been crowned with brilliant success. A former governor of Senegal, General Faidherbe, had clearly perceived the necessity of putting the interior of the Soudan, especially the banks of the Upper Niger, into communication with the French colonies of the west coast, and directing their trade into this channel, if Senegambia was ever to become a self-supporting dependency. For this purpose a navy officer, E. Mage, and a ship surgeon, Dr. Quintin, were sent up the Senegal and Bafing, and reached, after many delays and dangers, Segu Sikoro on the Niger, in 1864. They were compelled to await there the return of messengers whom they had sent back to Senegal, became involved in domestic broils and civil wars, and did not return till 1866. Their reports were published in the *Revue Maritime and Coloniale* for 1868, and contain most valuable information about large districts hitherto utterly unknown, accounts of very great changes in the latitude of important points, and maps and charts of surpassing beauty. The whole journey is a striking evidence of modern gallantry, and remarkable for the economy

with which it was accomplished: it cost little over a thousand dollars.

In the south of Africa the name of Karl Mauch has become illustrious by his exploration of the Transvaal Republic, a district very imperfectly known before, and by the discovery of immense gold fields in the north. During 1866 and 1867 he accompanied the intrepid elephant hunter, Hartley, on his expedition northward, penetrated the unknown land as far as the sources of the Umfule, which falls near Mpata above Zumbo into the Zambezi, and explored a large portion of the unknown watershed between the Limpopo and the Zambezi. He found it a table land nearly 7,000 feet high and often thirty miles wide, with numerous conical mountains rising from the surface; the rock was mainly granite, with metamorphic formations upon it, while the summits showed diorite and basalt. The vegetation is not at all tropical; there being neither palm trees nor tree ferns here, but only thick grass with thinly scattered trees, and upon the rich pastures innumerable herds of game. The result of the hunt in 1867, was 91 elephants, 5 rhinoceros, 2 hippopotami, 8 elands and a host of smaller game, with 4,000 pounds of ivory of the best quality. The population is astonishingly thin; the native Mashona have been conquered and nearly exterminated by the Metabele and the few survivors are kept as slaves. Beyond Mosilikatze the travellers found vast districts utterly abandoned; here and there deserted homesteads spoke of former better times, and where the gold mines were discovered at the head-waters of the Umfule and the Umniati; here traces of former workings were also discerned. It must be borne in mind, however, that the Portuguese knew centuries ago of the existence of gold in those regions, and obtained thence large quantities. Dr. Petermann even thinks that K. Mauch has discovered again the Ophir of King Solomon.

Heretofore unable to pursue his plans independently, and compelled to join others on their hunting expeditions, the intrepid traveller has, at last, been provided with such means as will enable him to travel hereafter according to his own wishes and the demands of science. He started immediately

once more northward in May, 1868, and great expectations are entertained from his new journey.

The great name of Dr. Livingstone promises, of course, the largest additions to our knowledge of this mysterious continent, when his reports shall reach England. He left the coast early in 1866 to sail up the Rovuma, which he had already twice ascended in his little steamer, and had skirted the southern end of the N'yanza when he was reported to have been murdered by thievish Zooloo Caffres. The British government sent an expedition out under E. D. Young, who reached the spot on which the murder was said to have been committed in 1867, and found that Livingstone had passed safely beyond it, although deserted by his hired men. In the meantime, reports of the presence of a white man at the southern end of Tanganyika Lake reached Zanzibar, and an elephant hunter met near the Victoria Falls on the Zambezi a number of men, who had been hired by Livingstone long after the date of his reported death. The hopes thus excited were not doomed to disappointment; for in April, 1868, letters from the great traveller reached England, which had been confided in February, 1867, at Bemba, to an Arab messenger, who had taken a year to reach Zanzibar. The latest news bears date October and December, 1867, when Dr. Livingstone was on his way to Udjidji on the eastern shore of Tanganyika Lake, waiting for the close of a war between natives before proceeding further. He had received letters and provisions sent to him from Zanzibar. It is supposed, that he has pushed on from there to the Albert N'yanza, in order to decide the question, whether that lake is connected with the Tanganyika. The results of his exploration cannot fail to add to his fame and to crown the work of the indefatigable traveller, who, for the greater honor of God and the welfare of his fellow men, has lived since 1840 in Africa, and has made since 1849 the most brilliant record achieved by modern explorer.

It is sad, that the annual tribute of life, so rigorously exacted by the dark regions of Africa, has at last been paid by a man of unusual promise. This was the French officer, Le Saint, who went in 1867, supported by the Geographical Society of

Paris, to the land of the Nile, with the purpose of passing through the continent from Khartoum to Gaboon. He had the great advantage of being aided by the brothers Poncet, the largest and most intelligent ivory dealers on the Upper Nile. Unfortunately he had no sooner set out on his perilous journey, accompanied by a well-armed force in the pay of that firm, than the relations of the native tribes near the White Nile and Bahr el Gasal became hostile, and civil war broke out all over that country. Their last trading station was already beyond the territory of the Njam-Njam and probably outside of the region watered by the Nile and its tributaries. But here also lay a great point of interest. The brothers Poncet had in their possession undoubted information of a great river Babura, flowing from east to west and forming near 16° E. Long. from Paris, a lake, called Metuasset, which sent a tributary on one side to the Benue, and on the other to the Tsad Lake. Besides, they had been told that this unknown river came directly from the Albert N'yanza, and that another river, called Suë, connected it with the Tsad Lake. This information, startling enough to excite serious doubts, was yet amply supported by previous testimony; the most careful observers, like Petherick, Heuglin, and Barth himself, had all heard of such a river flowing westward, and on Hassenstein's admirable maps of Central Africa a lake is placed on the very spot where Metuasset Lake was reported to be found. A whole series of reports, old and new, had previously been collected, all agreeing in the existence of such a river and such a lake, and Le Saint burned with the desire to settle the question by his own observation. He was not fated to accomplish his purpose, for death overtook him before he reached the Equatorial regions.

The short campaign of a British expeditionary force against King Theodore, of Abyssinia, has furnished much valuable information as to the races which inhabit that land of spurious Christianity; but its soil, climate and physical conformation were previously so well known, that few additions have been made here to our knowledge. The only important point is the extremely interesting fact that there is a region in that country, between the Houakeel Bay and the lake Alelbad, which

lies 193 feet below the level of the Red Sea, a depression far surpassing that of the Bitter Lakes near Suez, which it is intended to fill up for the purposes of the great Suez canal.

Next to the Polar regions and the mysterious sources of the Nile, Australia presents by far the greatest attractions for the adventurous traveller and the scientific explorer. The brilliant accounts of men like Burke, Stuart, Landsborough, Walker, Howitt, and a whole host of others less fortunate, have led the world to expect great results in rapid succession from such enterprises, and the last few years have formed no exception.

Unfortunately most of these travellers were without that thorough scientific preparation, which alone can make such explorations of permanent value. They possessed a noble spirit of self-denial, and often truly marvellous strength of purpose combined with very uncommon physical powers; but they were imperfectly qualified for scientific researches, if we except Babbage, who confined himself to the regions near Torrens and Eyre Lake, and Wills, whose sudden death by starvation left his otherwise invaluable diary in an imperfect state. No class of travellers in any portion of the world is superior to these men in the instinctive ability to scent water, to treat horses judiciously in most trying situations, and to endure sufferings of every kind and every degree; but they lacked the tact to connect cause and effect, to seize at a glance the characteristic features of a landscape, to divine, as it were, the natural boundaries and watersheds, and to discern the great principles underlying a number of single features. The contributions they have made to the maps of Australia are, therefore, of the greatest value; but they left unknown the general characteristics of climate and temperature; they could not give the elevations of mountains and table-lands, nor were they able to classify the results of their observations of the Flora and Fauna of that remarkable continent.

It was, therefore, a matter of special congratulation, that two of the later expeditions, those of McIntyre and Warburton, could furnish a series of measurements and an insight into the true nature of the interior of Australia, such as had never before been obtained. A committee of ladies in Victoria had

already, in 1865, collected funds for the purpose of sending men out in search of the remains of poor Leichhardt, who had disappeared in Queensland without leaving a trace behind him. Duncan McIntyre, who had discovered traces of the unfortunate traveller, was sent out with 12 camels and many horses. He followed the Parru upwards and then went northwestward to Cooper Creek, but the fearful drought of that year soon deprived him of all his animals and of half of his companions, whom he was forced to send back to the colony. With the remaining portion he continued, undaunted by his sufferings, his journey along the Barkee, crossed it at a point above Kennedy's remotest explorations and reached, in 1866, the McKinley range and the Flinders river. On this line he measured nine elevations with the aid of the barometer, but unfortunately chose for the purpose the summits of low hills, which could not have been more than a few hundred feet above the general level of the country. He ascertained the height of the watershed between the Barkee and the Flinders not to exceed 1000 feet, and in Eastern Queensland he found the table-land to rise nowhere above 2000 feet. Unfortunately, he also succumbed soon afterwards to a malignant fever, which was then prevailing near the Gulf of Carpentaria. His companion, Sloman, followed him a few days later, and his successor in the command, W. F. Barnett, returned, in 1867, to Sidney, without having discovered any traces of Leichhardt.

Major Warburton, whose name has of late become famous in the annals of Australian explorations, reached, in 1866, the as yet unknown northern end of Eyre Lake, and discovered on the eastern side the mouth of a large river, which he sailed up, and recognized as a branch of the Barkee. If this discovery be connected with the facts, that Strzelecki Creek has been found to be a southern branch of the same river, that McKinley and Howitt have found a northern branch falling into Lipson Lake on the Hope Plains, and that Moravian missionaries have, in 1867, met with still another southwestern branch, falling into Eyre Lake, then it is evident, that the Barkee forms a gigantic delta, twice as large as that of the Nile, and that its waters do not find an outlet into the sea, but are lost in a

vast, internal basin, of which lake Eyre forms the largest and lowest part. This is the almost unique feature of Australia: a vast low region in the very centre of the continent, surrounded by the Flinders, McKinley and McDonnell mountain ranges, and containing a complicated network of rivers, all of which are at one time swelled to overflowing by heavy rains and at another altogether lost amid sand and debris.

Landsborough is another name of great renown and good omen in the history of the young colony. Living as government resident in Burketown on the Albert river near the gulf of Carpentaria, he examined, in 1867, the Morning Inlet, which falls into this gulf between Leichhardt and Flinders river and found it navigable for quite large vessels up to 18° N. Lat., opening thus a valuable region for settlers. Next he ascertained that the so-called Bynœ river is nothing but the mouth of the Flinders, bordered on both sides with rich pasture lands. On the Norman river he founded a new city. When, in 1841, Capt. Stokes called the southern shore of the Gulf of Carpentaria the Plains of Promise, only a small corner of Queensland near Moreton Bay was settled. This part of Australia was next separated from New South Wales as an independent colony, and now it contains over 100,000 inhabitants, and its prosperity is amazing. As soon as settlements were established, a desire was excited to explore the new colony and to ascertain its physical peculiarities, and efforts in this direction have been crowned with success. This is evidently, in Australia, the only safe and profitable way of obtaining valuable knowledge. In other portions of the country, where the explorations have preceded the settlement, they have rarely, if ever, led to happy results. We abstain, therefore, from recording here the numerous expeditions, which have been sent out to other parts of Australia, although some were richly provided for by the government, and others led to the exhibition of almost sublime courage and energy.

In Polynesia great, though not particularly valuable, discoveries have been made. A Dr. E. Graeffe was sent out by the liberality of a Hamburg merchant, Godefroy, to visit, in 1866 and 1867, a number of islands in the Great Ocean. He dis-

covered several new ones, and furnished most minute maps of all, with very interesting reports as to their Fauna and Flora.

New Zealand is still the scene of Julius Haast's indefatigable labors. His main purpose is to explore the Southern Alps. Everywhere he has met with remarkable evidences of the glacier-period, and his maps are looked for with great interest. The well-known botanist, J. Buchanan, ascended in 1867, in the province of Marlborough, the Kaikora Mountains, and in Taranaki, Mount Egmont; he found the former 9,700 feet and the latter 8,270 feet high. He corrected the error of Dieffenbach, who thought he had observed a snow-line on Mount Egmont, for in February, 1867, there were only a few patches of snow seen in former craters, which lay several hundred feet below the summit, and these also had disappeared in May.

A very important acquisition to our knowledge of that ocean and to the commerce of the world, was the survey of Brook's Island by Capt. Reynolds in 1867. Discovered by Capt. Brooks in 1860, it was found to be situated to the north-west of Pearl and Hermes Reef, in 28° 14′ N. Lat. and 177° 23′ W. Long., a mere atoll with a few tiny islands in the basin and a good harbor, Welles Harbor, not unlike that of Honolulu, but larger and safer. It serves now as a station for the vessels of the Pacific Steam Company, which run between San Francisco and Japan and China, and is admirably adapted for the purpose of a coaling station, since it lies exactly on their course and offers great natural advantages. The Hydrographic Bureau of the United States has therefore given to the whole group, including Ocean Island, Sand Island, Green Island, and Pearl and Hermes Reef, the common name of Midway Islands.

Asia has been quite recently the scene of a journey accomplished under perfectly unique circumstances. Capt. T. G. Montgomerie, under whose superintendence the first scientific surveys of the district of the Himalaya and the Upper Indus have been carried on for some time, has availed himself of every opportunity to extend these valuable labors beyond the limits of the British territory. Thus he induced Captain Austen, in 1863, to go from Leh across the Tschang-La pass to the Pangong lake; Johnson, in 1865, from the same point across the

Karakorum and Kuen Luen to Eltschee in Khootan; and a Hindoo well practised in the use of geodetic instruments, to Jarkand. Finally, he prepared two Pundits—learned Brahmans of the higher classes—for making surveys and observations, and then despatched them to travel through Thibet proper, from Lake Manasarawar in the west, to the capital Lassa, to examine thoroughly the great route which was said to exist between these two points, and to learn all they could as to the course of the Brahmapootra within Thibetan territory. They were thus to complete what Huc and Gabet had not been able to accomplish; for though the latter had reached Lassa, they had come from China, and the whole western plateau belonging to Thibet was yet utterly unknown. After many fruitless efforts to obtain permission from the Chinese authorities, one of the two Pundits succeeded at last in entering Thibet, though he had to promise, upon his life, that he would not attempt to visit Lassa. He had started in March, 1865, from Khabmandoo, but it was July before he could cross the frontier at Kirong, and September before he found himself travelling on the great route itself along the Brahmapootra. Joining a merchant from Ladak, he pursued his way eastward, and was bold enough to enter the forbidden city early in January, 1866. He remained there till the end of April, visited several of the great Buddhistic convents in the neighborhood, saw the Dalai-Lama, and even conversed with him, and then returned on the same road as far as the Manasarawar Lake, left it at Dartshang, and crossing the Himalaya, found himself once more on British soil. The young man whose name has been kept secret for evident reasons, had thus accomplished his aim with rare self-denial and surpassing courage. Faithfully obeying his instructions, he surveyed with minute care the whole road for 1,200 miles! For this purpose he travelled invariably on foot, and counted his steps, passing at every hundredth step a bead of his Thibetan rosary, which he wore in his left hand, after the manner of the people among whom he was. In order not to be disturbed in this monotonous occupation, he always walked either before or behind his companions, and if any one approached him with an intention to speak to him, he turned

industriously his little prayer-cylinder, and his apparent devotion kept all at a distance, so that he could use unobserved even his compass. The cylinder, however, did not contain, like others, a paper roll with the Buddhistic prayer, but long narrow strips of paper, on which he jotted down the bearings of the compass, the number of steps, and other important notes. Far more difficult was it to use, without being discovered, the quadrant and the thermometer, which he had smuggled over the frontier in the false bottom of his little travelling-box. A wooden bowl, such as in Thibet is worn by everybody in the belt, filled with the mercury which he carried in a tiny phial, served as an artificial horizon. All these difficulties were enhanced by his want of money, as the unexpected delay at the frontier and other points had exhausted his scanty supply. He had to work for his living, and to earn a pittance by teaching native merchants the keeping of accounts as used in India. In Lassa he was more than once on the point of starving to death. At the same time he had to tremble continually, lest he should be discovered, and one day he actually met in the streets of the capital the very governor to whom he had pledged his life that he would not visit Lassa! His pluck and his endurance appear all the more remarkable, when it is remembered that he was not borne up by the religious zeal of the missionaries, nor the ambition nor the scientific ardor of European travellers, nor even by a wild and adventurous spirit. Under all trials and in all emergencies he remained perfectly calm and resigned, though at times nearly despairing, and his sole motive seems to have been a strong sense of duty. Surely a noble member of the great family of discoverers and explorers, whose name will one day shine bright in the annals of Geography! Captain Montgomerie has published the result of his labors and his most interesting diary, adding to the work a superb map of Thibet. How important his contributions to science are, may be judged from the simple fact, that Lassa was found to lie a whole degree further south than all known maps indicate, and that consequently the whole course of the Brahmapootra within Thibet has to be changed. He found the elevation of the great public road on which he

travelled; far beyond what had been expected—the lowest point which it ever reached was still 11,300 feet above the level of the sea, and at various passes it rose to a height of 16,000 feet, exceeding that of the summit of Mont Blanc! The extreme dryness of the whole plateau of Thibet was another striking feature which he observed: from September to May he saw no rain and only three times snow, while the Himalaya was covered with perpetual snow. The road itself was simply a cleared space, with heaps of stones at regular intervals at the side, and flags to show the way to the traveller in winter; nevertheless it is so admirably laid out, that horsemen never alight except when fording large rivers. Along the whole length—which amounts to 800 miles—station-houses are erected at distances of from 20 to 70 miles, with a supply of djaks in the lower, and asses in the upper, regions to carry loads, and horses for the travellers furnished in abundance by the nomadic natives, who encamp in the neighborhood. Couriers are continually passing, and the Pundit saw some who had just finished the whole journey of 800 miles, without stopping by day or by night for any other purpose than to take their meals and to change horses! Their faces were bleeding, their eyes bloodshot and deep-sunk, and the whole body covered with ulcers; for the clothes of the poor creatures are sealed up, so that they cannot take out the despatches, and only at the end of their journey an officer breaks the seal and allows them to clean themselves. The Pundit obtained, besides, most valuable information about the spiritual rule of the Dalai Lama and his position relatively to the secular head of China, and ascertained that at all events he did not possess the boasted power of reading the secret thoughts of men, since he deceived him as easily as other Thibetans.

A French expedition under Captain de Lagrée ascended, in 1866, the Mekong river, crossed the mountain chain, that divides it from the Irawaddy and explored the frontier districts between China and Burmah. The results are of the greatest importance to our knowledge of those regions, and for the revival of the trade between the two countries.

It is remarkable that although the Chinese and the Indian Empires contain fully one-half of all mankind, and although the two countries are utterly different in their richest productions and most skilful industry, as well as in the wants of their dense populations, no commerce is carried on between them. Efforts have not been wanting to establish communications, and Sprye and other Englishmen, familiar with the locality, have long since agitated the opening of commercial roads between Burmah and the Chinese province Yunnan. A railroad from Ragoon through the Laos states to Yunnan was proposed and the route actually surveyed. Insuperable difficulties, however, prevented the execution of the plan for the time. Then it was determined to examine the roads, which had formerly been used for the purpose, and Captains Sladen and Williams were sent out in January, 1868, with a strong escort of Mohammedans and Burmese, to Bhamo; from whence they will make their way on mules to Tali-fu in Yunnan, and then return through the Laos states. The native authorities lend efficient aid, and great results are expected.

Of recent Chinese explorations only one is important, that of A. S. Bickmore, of Cambridge, Mass., who, after having visited several points in the Indian Archipelago, travelled through Southern China, went as far as the Tung-ting Lake, and descended again the Yang-Tse-Kiang. He touched at several ports of Japan, visited the coal mines in the western provinces, passed through the seas of Tatary to the Amoor and returned to Siberia, and thus to Europe. He is a geologist, and has made valuable discoveries in his department, and his general observations are as interesting as his personal adventures are exciting.

Russia does not cease its immense labors in Asia, and can accomplish all the more as they redound as much to the furtherance of her military plans as to benefit science, and are, on this account, supported by the War Department as well as by the Imperial Geographical Society. Prince Krapotkin, already well known through his explorations in the Amoor District, undertook, in 1866, a long journey along the Lena southward, accompanied by the naturalist Poläkou, and well

provided with excellent instruments. He has made barometrical measurements, added much to our knowledge of the Fauna and Flora, and examined the geological formation of those wild, waste regions, in which a few Tungoose and Jakooto families live amid countless deer, foxes, musk-oxen, and reindeer. Another expedition has since started on an exploration of northwestern Siberia.

Great results have been recently obtained by the recent conquests in Toorkistan, where the staff officers of the victorious armies, followed by astronomers and topographic engineers, have produced a perfect revolution in the maps that were heretofore in use. The labors of English officers in Palestine have made less brilliant progress, though they also have brought to light many new and interesting facts. Anderson and Warren have been able to furnish the material for an accurate map of more than three-fourths of the Holy Land, and their excavations in Jerusalem have been rewarded with large additions to history, as well as to archæology.

In Europe there is, of course, no longer room for voyages of discovery, and the only additions to our knowledge of the land must necessarily refer to details. Meanwhile, expeditions are constantly sent out from there for the purpose of obtaining information abroad, which is subsequently made valuable by home industry. Among such stands foremost the French expedition for the determination of geographical positions. In the summer of 1867, four French Navy officers were dispatched to four different stations on our globe, in order to measure accurately their exact position. One was ordered to Montevideo, the Magellan Straits, Valparaiso, Callao, Panama, and Honolulu; another to Muscat, Zanzibar, Reunion, and Pondicherry; the third and fourth to Shanghai, Hongkong, Yokohama, Teneriffe, the Antilles, Cayenne, and the Azores. By means of careful observations made with the aid of partly newly invented instruments, such as the *lunette méridienne portative*, it is hoped that the longitude of these places can be determined accurately down to a second, and the advantage of such labors for geography generally, and for sailing vessels, chronometers, and maps, in particular, cannot well be over-rated.

In our own country, America, many and valuable additions have been made to the science. The plan to connect the Russian-American telegraph line with the American terminus in British Columbia, had to be given up for climatic and political reasons; but the labors undertaken for that purpose have by no means been lost. The most important gain for geographical science has been the thorough exploration of the Kwichpak or Yukon river, the principal stream in our new acquisition, Alaska. A corps of young Russian naturalists, under Captain Kennicutt, ascended the river in a small steamer for 1500 miles, establishing thus its fitness for navigation so far; but Captain Kennicutt died, in 1866, and the results of his investigations have not yet become public. In 1867, however, W. H. Dall and Frederick Whymper came down the same river from the point where the Porcupine falls into it to its mouth, and Whymper made a complete and accurate map of its course.

Equally important additions to our knowledge of the new territory were made by an expedition sent out by the government for the purpose of exploring the coast and the islands of Alaska. It was under the direction of George Davidson, assistant in the Coast-survey, and contained an astronomer, two hydrographers, one botanist, one conchologist, and several other men of science, specially chosen for the purpose. The geologist, T. A. Blake, was the first to make the results of his investigations known, and mentions especially the very interesting ascension of the Makuschinski volcano, 5,600 feet high, on the northern end of the island of Unalashka.

Robert Brown, who some years ago earned great renown by his successful researches in Oregon, and in 1867 accompanied Whymper on his journey to Greenland devoted himself afterwards to the thorough examination of Vancouver Island, and is now preparing a new map of that country. The whole topography of the island is changed, the lakes in the interior appear larger and more numerous, and all the elevations are carefully inserted.

On the Atlantic side, the Canadian government sent an expedition up the Ottawa river, to explore its whole length and

its sources, which had never before been visited. They accomplished this in 1867, and found the length of the river about 1,000 miles, and the source only some fifty miles distant from that of the Saguenay river. A new lake, Gros Lake, was discovered, through which the river passes, and which is reported to cover 400 square miles. Navigation was interrupted by rapids near this lake. The soil on the upper Ottawa was found to be excellent, but the climate much colder than that of Lower Canada, so that the large lake itself was partially frozen over as late as the 24th of May.

Captain Hall, who had already, in 1862, explored the regions near Hudson Strait, and then discovered that the so-called Frobisher Strait was closed on the west side, and therefore, only a bay, renewed his journeyings in 1864, and continued his explorations for several years, though so far without special results. In 1867, he made, in company with five sailors from whaling ships, and two Esquimaux, a six week's journey to Pella Bay, 150 miles north of Repulse Bay, where he had made his headquarters, in order to obtain sledge dogs. In 1868, he visited with five men King William's Land for the purpose of examining the graves of the Franklin Expedition.

While the admirable work of Mexican surveys has ceased with the French occupation, California has, on the other hand, been thoroughly examined. A New York Company purchased, in 1866, the upper half of the peninsula, from the American frontier in the north, to 24° 20′ N. Lat. in the south, of the Mexican government; leaving the sovereignty to the latter, but acquiring the right of property in all unoccupied lands. Two geologists, J. Ross Browne—now U. S. Minister to China—and W. M. Gabb, and a skillful engineer, F. Loehr, were sent out in 1867, and the admirable map drawn up by the latter, gives an entirely new aspect to the whole peninsula. It appears naturally divided into three distinct parts: the southern, belonging still to Mexico, from Cape San Lucas to the latitude of San Borja Bay, consists of a mass of granite, which rises in the San Lazaro mountain to a height of 6,000 feet, and abounds in valleys teeming with tropical fertility. The Central part is formed by gigantic deposits of tertiary sandstone, broken in

upon by volcanic formations. A chain of mountains, from 3 to 4,000 feet high, runs parallel to the eastern coast and falls off towards the west into lowlands, which are rich and fertile, near Magdalen Bay—a harbor vieing with that of San Francisco in size and security, but changing northward into deserts without water. The third part consists again of granite, but abounds like the central part, in volcanic formations. The whole population does not exceed 8,000 souls, one-half of whom live in the southern part, a race of mixed Spanish and Indian blood, entirely ignorant of the world and its troubles.

Of Central American explorations only Collinson's survey deserves to be mentioned. He examined, in 1867, the line between the Nicaragua Lake and Pim Bay, for the purposes of a railroad which was projected there and found it admirably suitable; the highest point was only 748 feet and the lake itself was found to be 128 feet above the sea-level.

In South America, it is mainly the thorough examination of the Amazon river which has furnished amazing additions to all the natural sciences. The work began in reality as early as 1860, when Manœl Urbano explored, by order of the Brazilian government, the Purus with its tributary, the Aquiry, in order to find the reported communication between it and the upper Madeira. In 1862, began the great expedition under the Captains J. da Costa Azevedo and J. S. Pinto, which surveyed the Amazonas from the mouth of the Tapajoz, where the French survey ended, to Tabatinga, and resulted in an accurate map differing largely from the previous maps furnished by the English travellers, Smyth and Low, in 1835, and Captain Herndon, of the U. S. N., in 1851. Thus Tabatinga was found to lie a whole degree farther north, and 40 minutes farther east than its position on Herndon's maps. The following years witnessed the exploration of the Tocantins and Japura by Brazilians, and of the Purus and Aquiry by the Englishman Chandless; the Peruvians sent the first steamers up the Ucayali and Pachitea, and found them navigable as high up as the mouth of the Maypu, near a Tyrolese colony, and all these investigations furnished most valuable results for science, as well as for the material interests of those countries.

They were destined, however, to be eclipsed by the brilliant expedition of Agassiz from April, 1865, to July, 1866. The Swiss savant received every assistance from his adopted country and a most brilliant reception in Brazil, such as would have honored a Humboldt. A magnificent steamer was placed at his disposal for the voyage from New York to Rio, and Mr. Thayer, a merchant prince of Boston, furnished him with a whole staff of scientific assistants at his own expense. When he arrived at Rio, the Emperor, the highest authorities, and the people themselves, all were eager to assist him and to further his plans. His public lectures were attended by the Court, and what had never before happened, by the ladies of the city; his birth day was celebrated by public festivities, and when he began his journey up the river, every facility was offered and every courtesy extended to him, so that his excursion assumed the form and proportions of a royal progress.

The main results of this great expedition were the ichthyological labors of the great naturalist and his investigations of the evidences of the ice-period in those regions. He was, of course, mainly interested in studying the fish of the Amazonas, and to examine all traces of glacier-activity in the whole valley of the giant river. In both respects his sanguine expectations were more than fulfilled. Before he left Pará he had already received 63 species of fish, or more than had up to that date been described in the whole district, and among these he found 49 entirely new species; during his journey on the Amazonas he collected not less than 1,800 to 2,000 varieties, and thus established the remarkable fact, that this one river holds at least twice as many species as the Mediterranean Sea, and a larger number than the Atlantic Ocean from pole to pole. All the rivers of Europe, from the Tagus to the Volga contain not quite 150 varieties of fish—and Agassiz found in a single small lake Hyanury near Manaos, more than 200 varieties! But even more remarkable than this astounding variety, is the fact that each one of these numerous species is strictly limited to a very small region. Such a limitation is of course not to be wondered at in a river, like the Mississippi, which flows through three distinct zones, forms its bed now in one geological formation

and now in another, and sees at its sources an Arctic and at its mouth a tropical vegetation on its banks. But Agassiz met different genera at very moderate distances from each other, in a river, which showed neither in the temperature of its waters, nor in the vegetation on its banks, an essential difference, and the same strict limitation was found in the tributaries and lakes.

As for evidences of the glacier-period, they greeted the great naturalist almost as soon as he left Rio; he saw traces, at least, at Tijuca, a short distance from the sea; he then met them again in Southern Minas Gereas, to which he made an excursion from the capital and along the eastern coast as far as Pará. Everywhere along the stream he encountered the same recent deposit, a reddish clay, which he calls drift, and which he thinks was brought by glacier-ice from the Andes, and after the melting of the ice, deposited in the Amazonas Valley. Agassiz has no doubt that at a certain period the whole of this magnificent plain, in which the Amazonas flows, was covered with glacier-ice in the same manner as in the region between the Alps and the Jura. The outer edge of this colossal glacier, he believes, has long since been swallowed up by the ocean, which here continually gains upon the continent, while elsewhere the rivers form deltas, and thus encroach upon the ocean.

By the side of these important scientific results, we must not forget that the great savant, fully identified with the views and leading ideas of our people, gave much of his attention to the political future of this remarkable region. He found thus, for instance, that while the grant of free navigation had been everywhere hailed with delight, too sanguine expectations had been entertained as to the immediate fruits of this measure. It had been forgotten, that the population was extremely sparse and indolent, that the whole vast valley contained but one large town, Pará, with, perhaps, 20,000 inhabitants, and that the next largest, Manaos, had only 8,000. Days and days passed, during which the exploring party saw nothing but endless forests. He found the whites not only few in number but low in character; the higher race had here, contrary to general experience, adopted the type of the lower race and

sunk down to the level of the savages. A better class of immigrants is evidently needed, and he looked forward to the day when the Saxon settler would take the place of the idle, listless Portuguese, who associates too readily and too fully with the low natives.

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2. *Life, Letters, and Posthumous Works of Fredrika Bremer.* Edited by her sister. New York. 1868.

3. *A Commonplace Book of Thoughts, Memories, and Fancies.* By Mrs. Jameson. New York. 1855.

'Here is an error, sir; you have made "Genius" feminine!' 'Palpable, sir,' cried the enthusiast. 'I know it. But' (in a lower tone,) 'it was to pay a compliment to the Duchess of Devonshire, with which her Grace was pleased. She is walking across Coxheath, in the military uniform, and I suppose her to be the Genius of Britain.' Johnson. '*Sir, you are giving a reason for it; but that will not make it right. You may have a reason why two and two should make five; but they will still make but four.*' [1]

It is pretty certain that the poet, whose toadyism was thus leniently dealt with by Dr. Johnson, is not singular in attributing feminity to Genius. We shall not stop to inquire if those who have imitated him have been sincere, or, like him, have simply wished to compliment some duchess or other, who has public or private means of rewarding the flattery. But we do propose, as far as the limits of the present article will permit, to investigate the validity of woman's claims, not indeed to genius itself, for those every one will concede, but to that

[1] Boswell's Life of Johnson.

kind of genius in the exercise of which man has chiefly distinguished himself, and especially to that kind of genius which can only express itself by means of what is called the Artistic Faculty.

The analogy of nature is certainly against woman, for it is only the male bird that sings, and he only in mating time; but we shall not permit analogies to weigh while there are facts to be had, nor shall we shift upon woman the burthen of proof.

Are there any women artists? Honest old Georgio Vasari, who ought to know, asserts very stoutly, albeit with some singular qualifying phrases: 'It is a remarkable fact that, whenever women have at any time devoted themselves to the study of any art, or the exercise of any talent, they have, for the most part, acquitted themselves well; nay, they have even acquired fame and distinction.' [2] 'Nor is this to be wondered at,' he remarks somewhere else, 'since they, who so well know how to produce living men, should certainly be able to make the painted semblance,'—a proposition which, if it did not conceal a fallacy, would unquestionably be unanswerable. Georgio further quotes the *Orlando Furioso* in support of his position, and concludes by triumphantly adducing and enumerating the works of Madonna Propertzia Rossi, a woman-artist who carved a crucifixion upon the circumference of a peach-seed, and engraved a *gloria*, with sixty figures, in *basso relievo* upon the small surface of a cherry-stone! Can argument be more conclusive?

In point of fact, this question of the existence of woman-artists is one in which we have taken great interest. We had seen, and admired, some of the remarkable works of Rosa Bonheur, though we could not see under which rule of the proprieties a girl should find occasion to go about making pictures of all the roaring bulls of Bashan. We had fully sympathized with Mrs. L. Maria Child in her somewhat agonized zeal to justify the peculiarities and eccentricities of Miss Harriet Hosmer, an artist who shoots pistols, wears trowsers, and rides horseback *en cavalier*, as well as sculptures Pucks and Zenobias; and we had set to work in good faith to examine the annals of

[2] Vasari. Life of Propertzia di Rossi.

Art, trusting to discover therein evidence in support of woman's claim to the possession of a genuine artistic faculty. We were quite sensible that man has been unjust to woman, and has wantonly excluded her from many pursuits, whether for the reason assigned by Spenser [3] or not, we would not say, but the fact stands, nevertheless; and moreover, our own investigations had inclined us to give a measureable assent to the words of the eloquent writer who claims that: 'Women have just as keen intelligence as men; less powers, may be, of abstract reasoning, but far finer perceptive and linguistic faculties. They need not be trained to exhaustive scholarship; but refinement of mental culture suits them, perhaps, even more than it does our sex. I imagine that the Lady Jane who read her Phaedo when the horn was calling, had as pretty a mouse-face as you ever saw in a dream; and I am sure that gentle girl was a better scholar than any lad of seventeen is now in any school of England or Scotland.' [4] Why, then, should not woman, with her warmth of soul, her enthusiasm, her quick perceptions, and her nimble intellect, be able to apply her keen sense of the beautiful to the cultivation of Art?

The result of our investigations has not been very encouraging. A survey of nearly the whole field of Art has scarcely revealed to us any woman-artist who has risen above mediocrity; nor has it revealed a single one entitled to a place in the front rank, among great artists. Woman has played upon the steps of the Temple of Art from the beginning—indeed, if we may credit Pliny, it was a woman's hand,[5] impelled by love, that traced the first portrait ever limned—but she has never gone within the threshold, never seen, much less mastered, the mysteries of the adytum. The list of woman-artists, though not long, is respectable, and the catalogue embraces some

[3] 'But by recorde of antique time I finde
That woman went in warres to beare most sway,
And to all great exploites themselves inclind,
Of which they still the girlond bore away;
Till envious man, fearing their rules decay,
Gan coigne streight lawes to curb their liberty.'
*Faery Queene*, III. ii. 2.

[4] D'Arcy Thompson: *Day Dreams of a Schoolmaster.*

[5] Kora, daughter of Dibutades, of Corinth.

pleasing performances,—but that is all. With a few exceptions, these women have become artists *by position*, as it were, from the circumstance of their fathers, brothers, or husbands pursuing Art. With a few exceptions, likewise, they have excelled chiefly as copyists, or in the minor branches of decoration, embroidery, and engraving, to which their delicate fingers fitted them. In sculpture, there have been Properzia, Sabina von Steinbach, Mrs. Damer, Miss Hosmer,[6] to set against the whole bede-roll of mighty masters of the chisel among the other sex. Sabina, who was the daughter of Erwin von Steinbach, the architect of Strasburg Cathedral, has won considerable renown in connection with the ornamental part of that sublime building, which was entrusted to her. But it seems beyond all question that she did little more than sculpture the figures after designs furnished by her father, though to her hand those groups may very well owe something of the purity and depth of feeling so conspicuous in them.[7] Among women painters, the most prominent names are those of Sophonisba Anguisciola, Elizabetta Sirani, Maria Robusti, Lavinia Fontana, Onorata Rudiano, Irene de Spilimberg, Madame Lebrun, Angelica Kauffmann, and Rosa Bonheur,—not one of which names, we opine, would offer any attractions to 'shoddy,' when he goes abroad in quest of 'old masters' with which to stock his gallery. Maria Robusti, who was Tintoretto's daughter, and Elizabetta Sirani, the pupil of Guido, were certainly artists of very great promise, but both died too young to have performed much, and, in estimating what they *might* have done, we must judge them by the achievements of their sex, rather than by those of ours. Angelica Kauffmann was deemed by her contemporaries (who likewise found surpassing genius in Benjamin West,) a rival to Raphael, but modern criticism has decided that her design was poor, her touch feeble, her color cold, and without truth. Onorata Rudiano is, perhaps, the most distinguished of all the female artists for *positive* achievement, but we must not look for these in the line of Art. She had only begun to paint, when, being one day at work for the tyrant of Cremona,

[6] And Miss Vinnie Ream.

[7] Von Guhl.

one of his minions insulted her and she stabbed him to the heart. Thereupon, she fled to the mountains in man's attire, joined a company of Condottieri, fought herself into the chief command, and for thirty years played the swashbuckler up and down Italy, with a renown that has come down to our own times, and with a self-satisfaction equal to that of Captain Dugald Dalgetty.

Now it cannot be said that the sex has failed to produce its Raphael, its Lionardo, its Michelagnolo, through lack of opportunity, or by reason of those repressive influences of prejudice, social custom, legislation, or the like, which, it is claimed, have kept woman out of the professions, and prevented her from freely developing her capacity to do man's work. On the contrary, even in the darkest periods of woman's history, there has been instinctive recognition of the apparent relation between her chaste, flexuous, subtile organism, and the delicate graces and refinement of art-work, and no less an eager appreciation of all that she has done or tried to do in that regard. Even in this hypercritical and sceptic age we are always ready and ardent to welcome a poem by a woman, whether it be poetry or not, as if there was a certain consciousness at the bottom of our minds that the poet *ought* to come from that side of the house, whether he will or not. Hence, the cause of failure must be sought deeper than in the lack of occasion—it seems, indeed, to be contained in that defective artistic sense which is characteristic of the whole sex. Woman, indeed, has the longing after Art, but she does not possess the true artistic insight, nor has she a hand firm enough to execute even her own imperfect conceptions. We must not be deceived by the present apparent tendencies of woman towards the artistic life into belief in her genuine capacity for that life. To do so would be conceding to appetite the unlimited power of satisfying itself. These tendencies, in fact, are rather the result of the atmosphere she breathes than of the blood in her veins. As Goethe has said, apropos of a kindred matter: 'What misleads young people is this: we live in a time when culture is so diffused that it has become the atmosphere which a young man breathes; poetical and philosophical thoughts, which he has

imbibed with the air he breathes, live and move within him; he fancies them his own, and utters them as such. But, after he has restored to the time what it gave him, he remains a poor man. He is like a fountain, which spouts forth a little water which is drawn into it, but ceases to give a drop when the loan is exhausted.'[8] And this is pretty much the case with the abounding artist-women of this era, whose nimble fancy transmutes their genuine admiration of art-work into capacity to reproduce art-ideas. How great is the error into which they fall may be very sadly known by a comparison between the innumerable women-*copyists* in the galleries of Paris, Florence, Rome, Munich, Dusseldorf, London, and the few women-*artists* who set up studios and attempt original pictures of their own.

That this artistic defect is a general one, and not confined to the graphic and plastic departments of Art, is apparent as soon as we look away from these to other branches of Art. We shall not ask where is the woman-orator,[9] for in this field she may justly plead '*absit momentum occasioque*,' but, where are the women-dramatists, the female Shakspeares, Calderons, Lopes, Molières? Where are the female Homers, Miltons, Dantes, Virgils? They do not exist—they never have existed —never will exist. Even upon the stage, where woman certainly has won distinction, she has excelled rather by force of feeling and exquisite taste in rendition, than by great creative powers. Mrs. Siddons, large-natured, generous, passionate woman as she was, owed much more to her Kemble kinship and her education upon the stage, than to her innate powers. As for Rachel, Mrs. Jameson denies that she was an artist at all; she was merely a highly finished actress, practiced in every trick of her *métier*, but not able to conceal her art, which, indeed, she had not evolved from her own consciousness, but had laboriously studied in the death-wards of hospitals, at the Morgue, and by the amputating table.

The history of the world's treasured *love-literature* reveals to us a curious fact in this connection. Of this literature

[8] Eckermann's *Conversations with Goethe.*

[9] 'Sir, a woman's preaching is like a dog's walking on his hind legs It is not done well; but you are surprised to find it done at all.'—*Dr. Johnson.*

woman has been the storehouse, the supplying fountain; of it she has drunk most deeply, most enthusiastically, most frequently to intoxication, and of love itself she knows each rill and abounding stream and all the deepest reservoirs and hidden crypts. Surely to her we should turn for the best exemplars of that which she has experienced so well and felt so deeply. But, we should turn in vain, for, excepting the supposititious verses of Sappho, and Mrs. Browning's 'Sonnets from the Portuguese,' (themselves a very passionate but very slightly idealized recital of her own courtship,) we have no love-literature by women of the noble sort. What we have is in the style of the Heloise abandon, or in the style of the nun's relinquishment. We find no creative energy, no grand palpitating flights of sublime passion. If men have it in them at all, love at once awakens within them the creative impulse; they set their passion to music, they play with it upon the gamut of colors, they send it to soar aloft on the expansive wings of an inflamed ideal, and we have a Vita Nuova of Dante, a Tasso series, a Fiametta of Boccace, a Toerther of Goethe, an Amoretti of Spenser, a Genevieve of Coleridge, or the like. Even stately Corneille, a grave lawyer, became a poet by force of love, and Ludwig Beethoven, dedicating some of his grandest pieces to his mistress, rapturously exclaims: 'Is not our love a true heavenly palace, also as firm as the fortress of heaven!' But love does not excite the creative impulse in woman, or does so very rarely.[10] It rouses in her the more selfish desire to possess the beloved object, and this desire is so exigent that it absorbs all other passions. Consequently it is with woman generally, as Sir Richard Steele said it was with Mrs. Aphra Behn: 'she understands the *practick* part of love better than the speculative.' Or, as Marivaux once remarked of a contemporary: 'il connoissoit tous les sentiers du cœur, mais il en ignoroit les grandes routes.'

What then constitutes this artistic faculty in which woman is believed to be deficient? 'Art,' says one of the greatest of women, and the truest artist of all her sex—

[10] In Mrs. Browning's case, the masculine type of her intellect must go into the account.

'*Art*
*Sets action on the top of suffering:*
The artist's part is both to be and do.'

But this same lady says again, forgetting the positive part of the above definition, and by that very circumstance exposing her sex's incapacity to grasp the highest Art—

'What is Art
But life upon the larger scale, the higher? . . .
. . . It pushes towards the intense significance
Of all things, hungry for the Infinite.
*Art's life,—and where we live, we suffer and toil.*'

Now just here is the fallacy in woman's view of Art, which is *not Life*, but *Result*—and result as much of living as of other things. If Art were Life, women would be the greatest artists, because they live most intensely and most sincerely. And, although it is indeed true that 'where we live we suffer and toil,' it is none the less true that we artists—men, at least—are very far from painting or sculpturing that suffering and that toiling, or the lines of care that come thereby, nor the groans thence evoked. On the contrary, Shakspeare and Raphael put their art as completely aside from their lives as they put off their garments when they went to sleep. Raphael had trained his mind to throw off its conceptions in form as completely as we train our minds to embody our conceptions in phrase; to Shakspeare, Lear and Othello had as perfect and rounded an individuality within his mind as belonged to his personal sensations of hunger and thirst. He knew them apart, and would no more have thought of confusing with them emotions peculiar to his own personality, than he would have thought of taking a glass of water to alleviate hunger. 'Claude Lorraine,' says Goethe,[12] 'knew the real world by heart, but used it only as a means to express the world of his fair soul. That is the true Ideality, so to use the means afforded by the actual world, that the truth evolved may at first appear to be actual too.' And this is what it means to be an artist: to be a man capable of living wholly self-contained, and in intimacy with, or subjection to, nothing whatsoever besides the very object itself which he seeks to idealize and embody. He must rise

[12] Eckerman.

out of the present; he must exalt himself above the world; he must soar into that sublime atmosphere of indifference where he will not be sensible of the petty noxia effervesced out of the soil, the corruptions of real things, the discontents, the agitations, the passions, the hopes, the longings that infect and weigh down the unspiritualized existence, the inartistic being. He must teach himself to look down from an Olympian height upon common things; neither melancholy, nor excess of joy must enfilade the march of his destiny, but only serene, complacent, ever-active, mild enjoyment fill up the measure of his blissful hours. He must float along in a sort of harmonious waking dream, in which each event of life shall be but a modulation of the predominating rhythm, all made tunable and ravishing to his symphonious soul. He must possess genuine feeling, to be sure, acute susceptibility, and an eye alive to every truth and every impression of Nature, from the simplest to the grandest. Yet, while seeing all things in their most intimate lights and their most multitudinous aspects, and while awake to all emotions with the most vivacious and the tenderest sensibility, he must always be the master of these forces within him, never their slave; he must never suffer his mind nor his hand to be restricted from the freest plastic power over them, but to continually modify, mould anew, or recast whatever may come within the scope of his mental, moral or physical retina. Once losing this grasp, once yielding this mastery, he loses the best part of his artistic faculty forever. For the artistic faculty is compound of the power of accurate insight and the power of thorough elimination, and the artist must possess these powers in equal measure if he would attain to the summit of his work. Goethe, beyond all others, exercised these two powers consciously, and with a thorough comprehension of their purport; all great artists exercise them somewhat. And so, when the Marquis de Custine said of Rahel von Euse, that 'she was an artist and an apostle, yet had not ceased to be a child and a woman,' he enunciated not only a paradox, but an impossibility. Rahel *was* an apostle—for her sex—she was an innocent child, and a pure, high-thoughted, suffering woman; but she was *not* an artist, and she proved that she was not by her inability to

clear away the mists, the vapors and obscurities that bedimmed and nullified her utterances. She wrote like a genuine woman, the noblest of her sex, but her books, like those of nearly all women, were deficient 'in that indescribable quality called Art.' She could not merge her own personality in her task, and so, could not attain to the highest.

Woman herself is fully conscious of this 'impotence in Art,' generated, Mrs. Browning says, from the fact of her being 'too apt to look to *one*.'

> 'We strain our natures at doing something great,
> Far less because it's something great to do,
> Than, haply, that we, so, commend ourselves
> As being not small, and more appreciable
> To some one friend. . . . . .
> . . . Love strikes higher with his lambent flame
> Than Art can pile the faggots.'

Another female writer of great eminence and very remarkable character—Margaret Fuller Ossoli—speaking of her sex, says: 'In vigor and nobleness of expression, most female writers are deficient. They do not grasp a subject with simple energy, nor treat it with decision of touch. They are, in general, most remarkable for delicacy of feeling, and brilliancy or grace in manner.'[13] Mrs. Jameson, in one of her prefaces, modestly confesses: 'I lack that creative faculty which can work up the teachings of heart-sorrow and world-experience into attractive forms of fiction or of art.' And elsewhere, in reproducing Mrs. Browning's faulty definition of Art, she has unconsciously betrayed why it was that this power was lacking to her: 'It is *the desire of sympathy* which impels the artist-mind to the utterance in words, or the expression in forms, of that thought or inspiration which God has sent into his soul.' Ah, Mrs. Jameson! it is this, indeed, which impels the mind of the woman-

[13] This very remarkable woman, the originator of almost all that is reputable in the 'Woman's Rights' movement, seems to have had a full consciousness of her sex's deficiency in respect of the artistic faculty. She writes: 'If men are often deficient in delicacy of perception, women, on the other hand, are apt to pay excessive attention to the slight tokens, the little things of life. Thus, in conduct or writing, they tend to weary us by a morbid sentimentalism.'

Of Mrs. Browning, she says: 'She has the vision of a great poet, but little in proportion of his plastic power. . . . . She is singularly deficient in the power of compression.'

And again: 'We have seen women use with skill and grace the practical goose-quill, the sentimental crow-quill, and even the lyrical, the consecrated feather of the swan. *But we have never seen one to whom the white eagle would have descended.*'

artist—but was it 'the desire of sympathy,' or was it the uncontrollable joy of creation, which impelled Raphael, Shakspeare, Homer, to utter the thought that was in them? Whose sympathy could the old Greek claim, or feel proud of, as he begged along the streets, singing his divine rhapsodies for bread? Whose sympathies might comfort the lone Stratford player, getting himself together that decent house and fortune by making comedies and tragedies for the Globe Theatre? Whose sympathies should Raphael desire, he, the heavenly-thoughted, painting angels and goddesses for the goddess Leo?

Pauline Viardot, the actress, naively confesses: 'D'abord je suis *femme*, avec les devoirs, les affections, les sentiments, d'une femme; et *puis je suis artiste*.'[11] But there is a little anecdote in Mrs. Jameson's *Commonplace Book* which so completely illustrates the concrete character of woman's conceptions of Art, that we cannot do better than to quote it. 'On a certain occasion, when Fanny Kemble was reading Cymbeline, a lady next to me remarked that Imogen ought not to utter the words, "Senseless linen! happier therein than I!" aloud, and to Pisanio,—that it detracted from the strength of the feeling, and that they should have been uttered aside, and in a low, intense whisper. 'Iachimo,' she added, 'might easily have won a woman who could have laid her heart so bare to a mere attendant!'

'On my repeating this criticism to Fanny Kemble, she replied just as I had anticipated: "Such criticism is the mere expression of the natural emotions or character of the critic. *She* would have spoken the words in a whisper; *I* should have made the exclamation aloud. If there had been a thousand people by, I should not have cared for them—I should not have been conscious of their presence. I should have exclaimed before them all, "Senseless linen! happier therein than I!"'

'And thus the artist fell into the same mistake of which she accused her critic—she made Imogen utter the words aloud,

[11] This monstrous catechresis of paradox reminds us of one of Hayward's notes to Faust, *apropos* of a similar *lapsus*: 'I think it is Miss Letitia Hawkins who called Eve an overgrown baby, with nothing to recommend her but her submission and her fine hair.' Eve would have made a good artist after the M'lle Vierdot pattern.

because *she* would have done so herself. *This sort of subjective criticism in both was quite feminine; but the question was not how either A. B. or F. K. would have spoken the words, but what would have been most natural in such a woman as Imogen.*'

It seems probable that it is to this consciousness of her weakness in respect of the artistic faculty, and her incapacity to cope with man creatively, we owe the rather blatant style of self-assertion which is common now-a-days among the 'strong-minded' of the sex. They whistle very loud to keep their courage up, and are properly indignant if you suspect them of whistling, like Dryden's Cymon, 'from want of thought.' It is no new thing, indeed, for woman to cry out; nor is the style of the outcry—even as interpreted by Miss Anna Dickenson—modern. It is as old as the *Lysistrata*, and the *Ecclesiasuzæ* of Aristophanes.

> 'Sithence I loathed have my life to leade,
> As ladies wont, in pleasure's wanton lap,
> To finger the fine needle and nyce thread;
> Me lever were with point of foeman's speare be dead,' [15]

says Spenser's amazon, and echo the cohorts marshalled by Mrs. Stanton and Miss Anthony, and encouraged by George Francis Train and John Stuart Mill—'*im*par nobile fratrum.' It was this consciousness which made Madame de Stael 'a whirlwind in petticoats;' [16] this which gave pungency and bitterness to the reflections of Mrs. Browning in *Aurora Leigh;* which cut off Madame Dudevant's hair, put her feet into boots, and re-baptized her *George* Sand. To this consciousness the world owes most of its *femmes incomprises*—recalcitrant 'sultanas of mind,' like de Stael, who, impatient of the obstructions of sex, and bitterly ill with 'the disease of the times—a great longing to create, and little power of creation,'—rush into print, into Art, into publicity, upon the stage, the rostrum, the pulpit, and into the editor's chair, and make haste to justify the very charge their champion has been at greatest pains to repudiate, that

> 'A woman's function plainly is—*to talk!*'

[15] Faery Queene, III., iii., 6. [16] Heinrich Heine.

This class of persons has always been prompt to deny what, nevertheless, is very certainly the fact, that there is an essential and material difference between the sexes in respect of mental and moral development; that 'man is not man, nor woman woman, primarily, by virtue of their *formal* differences from each other, but by virtue of their spiritual or interior differences, the differences of their genius, or temper of mind;' and that in this interior and spiritual difference of development we must seek for the causes of the discrepancies between them in respect of Art culture. No philosopher, who seeks to found his system upon the submergence of the distinctions of sex, will be able either to benefit his own age, or win the attention of posterity. For these distinctions are not only as permanent and immutable in the mental and moral as in the physical aspect, but their effects are interwoven throughout all history and all the social fabric, and are meant to continue thus pervasive, so that each sex may 'find in the other its best appreciation,' and the system of checks and balances by which the whole economy of the universe is kept up, may find its most elaborate illustration in God's most beautiful creation. 'Woman,' says the Cabala, 'is man reversed, his mirrored image; whilst he is a self-acting principle, productively stirring outwards, and ever seeking the universal, the infinite, the woman is the negative principle, acting from without inwards, from the circumference to the centre, receptive, ready from man's expansive energy to reduce concrete forms. Thus by the Jews is woman called the house of the man, and the Talmud designates woman as the wall which is erected around man. . . . . Man and woman are an inseparable whole—one forming the ideal, the other the real. In man, the ideal has sway,—in woman, feeling; thus she adheres to the concrete and external, and has an innate living sense. She is possessed of an inward presentiment of the world: thus, she is endowed with unerring tact, and arrives at maturity sooner than man, who desires to attain all knowledge through his own exertions. The aspiration of woman is towards the pure and noble, and she attracts to herself man, who is ever seeking after that peculiar nature

with which woman is endowed.'[17] There are distinctive traits in man and woman which *must* be interpreted as meaning differences insuperable to education, to time, to any absorption, however total, of prejudice. The cartilage of woman's larynx is never ossified, and so, her voice can never fall into the depth of the bass; but this physical testimony to the perpetuity of a line of demarkation is not near so convincing, nor its permanency better established, than a thousand mental and moral traits that could be pointed out. These points of difference, of distinction, are so numerous that the difficulty is to select from them for illustration. Mrs. Jameson has remarked: 'A woman's patriotism is more of a sentiment than a man's, —more passionate; it is only an extension of the domestic affections, and with her *la patrie* is only an enlargement of home. In the same manner, a woman's idea of fame is always a more extended sympathy, and is much more a presence than an anticipation. To her the voice of fame is only an echo—fainter and more distant—of the voice of love.' 'Bettina,' says she, in another place, tracing the characteristics of Bettina Brentano; 'Bettina does not describe nature, she informs it with her own lips; she seems to live in the elements, to exist in the fire, the water, like a sylph, a gnome, an elf; she does not contemplate nature, she *is* nature.'

Goethe observed that woman could form no idea of 'a mere sympathetic veneration for the creations of the human intellect, apart from some extraneous associations;' nor, indeed, can she form such an idea with respect to the creations of the Divine Intellect, and, consequently, her worship, like her faith, differs essentially from man's—

'He for God only, she for God *in him!*'

Woman sees everything under individual aspects. She cannot generalize—'no, not even grief.' As Mrs. Browning has said, addressing her sex—

'You gather up
A few such cases, and, when strong, sometimes
Will write of factories and slaves, as if
Your father were a negro, and your son
A spinner in the mills.'[18]

[17] History of Magic. By Dr. J. G. Ennemoser.

[18] This is a palpable squint at Mesdames Gaskell and Beecher Stowe.

Woman is incapable of philanthropy, which is the love of all mankind. She loves only man, and cannot be taught to bestow her affection upon the race. The conception is too vague for her affection, the motive too vast for her strictly practical genius. She believes only in the concrete, the tangible, the visible, and her mission, as they call it, is strictly proportionate. Hence, she has no idea of humanity or charity: she is simply humane and charitable. Her pulse never beats one degree quicker because the race went wrong—

> ('Show me a tear
> Wet as Cordelia's, in eyes bright as yours,
> Because the world is mad'—)

but, admonish her of a particular grievance, an individual wrong, an especial injury or woe, and how quickly her tears rain down, how promptly her purse-strings are unloosed! For the rest, she is impatient of reasoning, trite and shallow in argument, seldom dispassionate, seldom impartial: yet she will not permit you to question the validity of her processes, much less of the judgment she founds upon them. 'Les femmes,' said that very shrewd observer, Madam Maintenon, 'les femmes ne savent jamais qu' à demi, et le peu qu' elles savent les rend communèment fières, dédaigneuses, causeuses, et dégoutées des choses solides.'

Woman's tendencies do not bear her upon the path of what we call *Genius*—that meteoric capacity for shooting ahead of the general destiny of the race, for casting a magic light before and after, and for anticipating with a burst the results toward which the common race plods slowly and drearily on—a capacity always miraculously conjoined with an intense ideal force, an indefatigable faculty of production, and a grandly confident mastery over, and skill in, the employment of the resources of Art. For woman's quality does not tend towards ambition, but towards ease; she seeks not to tickle her palate with new dainties, but to satiate her appetite with comfortable fare. She would never have discovered with Copernicus; she would never have accepted what Copernicus discovered, for her life-long motto is 'quieta non movere,' and the god Terminus always gathers moss when he stands within her boundaries.

She is, as Jean Paul says of her: 'the spiral spring of a domestic machine—the theatrical directress of a great household drama'—and it is commonly not a tragedy, but a *comédie bourgeoise* that is put upon the stage she manages. Her virtue is an extempore one, active only in the present tense, indifferent alike to the past and to the future, and satisfying every instinct of her heart so long as it enables her to be ever 'the busy blessing of the present hour.' But, this fact 'disqualifies her for all didactic dignity,' makes her content to substitute expedient for performance, makeshift for product, and constrains her to rattle off the entire music of life *staccato*. So, her arrows are never bound into a sheaf—so, her influence, though intensive, is narrow.

> 'Therefore this same world
> Uncomprehended by you must remain
> Uninfluenced by you. Women as you are,
> Mere women, personal and passionate,
> You give us doating mothers, and chaste wives,
> Sublime Madonnas, and enduring saints!
> We get no Christs from you,—and verily
> We shall not get a poet, in my mind.'

When the impulse to art-work seizes a woman—and this influence is commonly what Goethe's physician called merely 'an intellectual impulse of sex'—it stirs her in another way from that in which it urges man along. The law of the *ne quid nimis* has no place in her code. The dominant fancy, 'like Aaron's serpent, swallows all the rest,'—including the judgment. 'Had I not felt like Dido,' said M'lle Clairon, the actress, 'I could not thus have personified her.' And this lady was so enraptured with her art, that she never could persuade herself to come off the stage. 'If I am only a vulgar and ordinary woman during twenty hours of the day,' she said, 'whatever effort I may make, I shall only be a vulgar and ordinary woman in Agrippina or Semiramis, during the remaining four hours.'[18] This preposterous pleonasm of fancy, this irrepressible flutter of enthusiasm, which is in her mind, when at work she unconsciously incorporates into the work itself, until we are forced to wish that a special 'law of parsimony' could be enacted against the whole sex. When Perrault

[18] Disraeli. *Curiosities of Literature.*

wrote his fairy tales, he was briskly followed by Mesdames Murat and D'Aulnay, and M'lle De la Force. But, while Perrault was considerate to his supernatural machinery, sparing it all he could, 'these ladies seem to have vied with each other in excluding nature from their descriptions, and to have written under the impression that *she* must bear away the palm whose palace was lighted by the greatest profusion of carbuncles, whose dwarfs were the most diminutive and hideous, and whose chariot was drawn by the most unearthly monsters.' [19]

This default of sobriety is peculiarly unfortunate to the woman-artist. Being, as it were, driven to interfuse her whole being with the work she has undertaken, to make it part of the very breath of her body, so to speak, and being at the same time much more susceptible than man to the reactive influences of temperament, she is necessarily compelled, instead of rising to the proper height of her great argument, to bring the work down to her own level, or abandon it altogether, from the lack of sustaining strength. The man, having reserved forces and discretion in their employment, can go to the mountain top and return safely; the woman, out of breath at the start, must abide at a low level, or succumb from exhaustion in an atmosphere too rare and chill. Hence, her art-work is almost invariably petty, inadequate, mean.

Moreover, since the pure imagination seldom furnishes her with a sufficient impulse, since the cold ideal is not competent to inspire her concrete nature, her standard is necessarily less elevated. She gets her inspiration from things real, actual, and therefore commonplace, and a commonplace inspiration is the natural result. This also is detrimental to her power in Art, for it encourages in her a want of diligence, and it contributes to corrupt her artistic *conscience*—that highest quality of the true artist. She works to supply the present need, and, so long as the extemporaneous effect of what she does seems adequate, she is fully satisfied with the result. She has, naturally, from the nimbleness of her intellect, a sort of facility which man does not possess, and she does not require more of her

[19] Dunlop. *History of Fiction.*

powers. She does not, like man, erect for herself a lofty ideal standard, a brazen serpent in the wilderness, to turn away from which is death. She fetters herself with no iron gyves of rigid requirement, nor has Art for her any absolute appalling splendor before which her powers must shudder and turn away, as Daphne shrank before Phœbus, dreading his divinity. Easily working, easily contented with her work, what she produces has almost invariably that fatal half-baked quality, for which true genius has no toleration and true Art no place. She ventures everywhere, conquers nowhere. 'Miss Joanna Baillie's tragedies and comedies,' says Hazlitt, 'one of each to illustrate each of the passions separately from the rest, are heresies in the dramatic art. With her, the passions are, like the French Republic, one and indivisible: they are not so in Nature, nor in Shakspeare. . . . . Her comedy of the Election appears to me the perfection of baby-house theatricals. Everything in it has such a do-me-good air, is so insipid and amiable. . . . . She treats her grown men and women as little girls treat their dolls—makes moral puppets of them; pulls the wires, and they talk virtue and act vice, according to their cue and the title prefixed to each comedy or tragedy, not from any real passions of their own, or love of either virtue or vice.'

Finally, the art-impulse in woman is always a subsidiary, never an original, force. It is only the disappointed woman who turns to Art; it is only those who have lost something in the line of their affections, in the line of their true development, who seek in the distractions of Art a compensation for their pains. 'When women are married, and have children to take care of, they do not often think of writing poetry.' But Art will not be served in a corner. The true artist must find his children, his friends, the centre and circumference of his affections, in Art itself. This, woman cannot do, and, therefore, she cannot become the true artist.

But, insist those strenuous appellants in behalf of 'Woman's Rights' who occupy so many lecturing desks; elevate woman from her inferior place in society, and you will not have to complain any longer of her inferiority in achievement. Give her the ballot, and she will turn you out ready-made states-

women; endow her with the pencil, and you shall have Leonardinas and Raphaelettas! But, in point of fact, is not woman's social position a testimony in itself to her inferiority *quoad hoc?* In the East, indeed, woman would have always found it difficult to rise, for there she was the subject only of passion, never of esteem. But, among the Germanic races, men have always, even in the rudest ages, sought to make women 'their equals and companions, whose esteem, as valuable as their other favors, could only be obtained by constant attentions, by generous services, and by a proper exertion of virtue and courage.'[20] In Iceland and Scandinavia, woman was in every way protected, and in every way upon an equality with man. In chivalrous Provence, during the Middle Ages, man, indeed, seems to have been bitten with a love-madness, so that woman to his eyes *vera incessu patuit dea* under all circumstances. Here, then, were periods when there was neither social oppression, nor the charge of intellectual inferiority, to bear woman down. Why did she not illustrate these periods? Why have we not poems of the Lady of Tripoli to Rudel, as well as poems of Rudel to the Lady of Tripoli? Why did not woman preserve her equality when she was revered as a prophetess, when she had unlimited right of divorce, and absolute control of her property, and not an obstacle in her way? The reason is, that woman's true sphere is the sphere of the affections, and that whenever she rises intellectually to an abnormal degree, she begins to sink morally, by the virtue of her very nature, and so loses that saving respect among men which is her true shield and only safe guardian. There were plenty of clever women in Greece, women of brilliant culture and superior intellect; but, they

[20] Mallet. *Northern Antiquities.* 'But the Scandinavians went still further, and were not tenacious of independence in relation to the fair sex. Women were the organs by which they communicated with deity, prophetesses, oracles, &c.'

Cæsar, Tacitus, Strabo, bear testimony to their position in council and in the administration of public affairs.

'A great respect for the female sex had always been a remarkable characteristic of the Northern nations. The German women were high-spirited and virtuous. . . . . The love of God and the ladies was enjoined as a single duty. He who was true to his mistress was held sure of salvation in the theology of earth.'—Hallam. *Mid. Ages.*

were—courtezans! In point of fact, every period marked by great intellectual cleverness, and, consequently, great intellectual preponderance of women, is also marked by an excessively low moral condition of woman; and the rule holds good for persons as well as for periods. We recognize this clearly in the period of Aspasia, in the period of the Scandinavian Valor, in the period of Chivalry and of the Troubadours, in the period of Madame de Longueville and the Fronde, in the period of Ninon de L'Enclos, in the period of Madame Du Deffaud, in the period of Madame Recamier and the Parisian *salons*, in the present status of intellectual women in Paris and in London. We discover the principle at work in Sappho and in Heloise, in Madame de Stael and Mary Wolstoncraft, in George Sand and George Eliot. The intellectual woman is *une femme incomprise*—a woman out of her sphere, an anomaly, an imperfection.

> 'You stand aside,
> You artist women, of the common sex,
> You share not with us.'

'It is most certain,' says that earnest and accomplished woman, Mrs. Jameson, 'that among the women who have been distinguished in literature, *three-fourths* have been either by nature, or fate, or the law of society, *placed in a false position;*' but she adds: 'the cultivation of the moral strength and the active energies of a woman's mind, together with the intellectual faculties and tastes, will not make a woman a less good, less happy wife and mother, and will enable her to find content and independence when denied happiness.'[21] Unquestionably this is so; but the difficulty (and it is a difficulty which no advocate for woman's equality has as yet fairly met,) lies in the fact that the cultivation of the moral strength of a woman does not go hand in hand with the cultivation of her intellectual faculties, and that so far the result of culture has unfortunately been to pamper the latter at the expense of the former. In other words, no safe means has yet been found to emancipate woman from her place in the sphere of the affections.

[21] '*Winter Studies and Summer Rambles in Canada.*'

After all, will it not be best if these means never should be found? Is it not best that the intellectual should not preponderate in woman over the affectionate? Is it not best that her artistic faculties should remain in abeyance to her domestic nature? It has been acutely remarked that 'no man believes or ever will believe in woman as a teacher, until he has grown indifferent to her as a woman.' It is the natural inequality of the sexes which brings about the union between them, which produces that mutual veneration and that mutual love which are the corner-stones of the fabric of society. And we discern this rule at work even in the strong-minded women, who turn away from the strong-minded of the other sex, seeking in their mate qualities the opposite of those they themselves possess. Madame de Stael loved Rocca—but Rocca was a woman, except for his beard, and de Stael was a man, minus the beard. If the qualities of men and women were similar, we should have, instead of our present society, a perpetual war of the Amazons and the Giants. The true relation of the sexes is founded upon this very disparity which seems so much to irk the *femme incomprise*. Both sexes derive from it personal traits they would not otherwise possess, personal virtues they might otherwise sigh for in vain. It has been well said, that 'neither man nor woman disclose themselves truly, that is, poetically, save to each other, because neither has a perfect faith in themselves, but only in the other.' And this true relation presupposes the inferiority of woman to man, so far forth as breadth of nature is concerned, and so far forth as perfection of development is concerned. She is inferior to him in strength of passion, she is inferior to him in strength of intellect, and she is inferior to him in strength of body. But this inferiority does not lower her in the scale of being, by any means, but rather exalts her. For these qualities are of the earth, earthy; while in the qualities which take one nearest Heaven, in depth of moral purpose, in purity of thought, in embrace of affection, in sublimity of soul, woman is, and always must be, eminently man's superior. Whenever we conceive an angel, we conceive him under the guise, and with the form, the features, and the saintlike exaltation of

a woman. And however we may look upon woman as mentally our inferior, we always concede to her at least an equal insight with us into divine things. In all the pride of our intellect and all the restlessness of our ambition, we are not able to exclude the consciousness within us, that a woman, quietly searching in the cup of a modest flower, or the blue eyes of a child, *finds* in those simple finities more than the Infinite which we madly seek in space, like blind Orion clutching at the stars.

This is why it is not given to woman to go forth into the world sounding a trumpet, for the wooing tones of her voice at home reach farther and penetrate deeper; and the blare of the trumpet would drown the cradle-song forever.

For, after all, woman fills an equal place in nature with man, and is equally important, equally indispensable, in the economy of the globe. There is a class of ideas which we derive from woman, and a class of feelings which originate with woman, to which the world is fully as much indebted as it is to all the intellectual endeavor, all the passion, and all the physical conquests of man. Woman's finer sensibilities, her keener appreciation of beauty, her instinctive unerring taste, her exquisite sense of order and of fitness,[22] have left their enduring marks all around us, in our common speech, in our daily life, in the ornaments of our homes, in our hourly round of duty. Comfort is a word which would signify a new and unknown sense, but for woman. Buffon, to indicate man's rapid progress in ameliorating characteristics, used the formula: 'Les races se féminisent.' Comte, in his scheme for the social dynamics of the future, ascribes to woman the bringing about of 'la prépondérance de la sociabilité sur la personalité,' in other words, the substitution of charity for selfishness; and he asserts, unqualifiedly, that woman's mission is the moral regeneration of man. The moral firmness of woman is a lesson perpetually teaching itself to all of us—she is like the *Justina* of Calderon:

[22] 'Willet due genau erfahren was sich ziemt,
So frage nur bei edlen Frauen an—'
Goethe: *Tasso.*

'This agony
Of passion which afflicts my heart and soul
May sweep imagination in its storm;
*The will is firm.*'

It was said of Madame Roland:[22] 'Elle avait du caractère plutot que du génie'—yet that character has had a mightier influence upon the sympathies of men than all the tempestuous genius of Mirabeau, or all the grand marches of Napoleon. For woman teaches by example, after all, not by precept, nor by act of hand. And it is due to the impulsive, impetuous nature of woman that her example penetrates so deeply. 'The women are all before,' said Mephistopheles to Faust, on the route to the Blocksberg; 'for, in going to the house of the wicked one, woman is a thousand steps in advance.' Equally far is she in advance of man on the path to the House of the Blessed One. And herein is the error in Bunyan's great allegory, for, had he been true to nature, he would have depicted Christiana as not only the first to make the journey, but also as returning after Christian to encourage him on the way, and *to share his burthen with him!*

After all, and in spite of all the twaddle of the half-breeched spasmodists, who are fretting to be unsexed, woman is thoroughly aware of the work set apart for her to do in the world; and she goes to her task with a perfect confidence, and that perfect love which casteth out fear. She knows that it is her function, 'by natural and divine right,' to bring happiness into the world; and this is the only work to which she cordially applies herself, and with which she is perfectly well pleased. In this sphere of her activity she moves on like the poet's star, neither hasting nor resting, refreshing herself, indeed, instead of being fatigued; ever following upon man's toiling footsteps to glorify with her smiles and her comforts, her love and her blessing, the regions that he has painfully conquered—planting flowers about every cabin newly hewn out in the wilderness. The Bohemian phantasmists may try to lift her from this sphere; the *femmes incomprises* may gnash their teeth at their own incompetence to move aright therein, but the true woman passes on, serene, and smiling, and content, knowing exactly

[22] By Chateaubriand.

her work, and performing it grandly. Within this sphere she is at home, iron-rooted, inexpugnable. In this sphere, she is happy, bestowing happiness, and culling the flowers of love; and, whatever storms may come, so long as she still abides here, they cannot wrest the smile from her face nor the blessedness from her heart. She is often martyred here, but even her martyrdoms have their ample compensations, for then, her 'whole life becomes the school of eternity.' [24]

We may well say, then, with Thomas de Quincey: 'Thou, therefore, daughter of God and man, all-potent woman! reverence thy own ideal; and in the wildest of the homage which is paid to thee, as also in the most real aspects of thy wide dominion, read no trophy of idle vanity, but a silent indication of the possible grandeur enshrined in thy nature; which realize to the extent of thy power,—

'And show us how divine a thing
A woman may become!'

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ART. IV.—1. *Hortensius; or the Advocate.* By William Forsyth, Esq., M. A., Barrister-at-Law. London: John Murray, Albemarle street. 1849.

2. *The Relation of the Legal Profession to Society.* A Lecture delivered before the Maryland Institute, March 9th, 1868, by Geo. Wm. Brown. Baltimore: Kelly, Piet & Co. 1868.

It is interesting to study the peculiar sentiments with which the members of the Bar are regarded by the rest of mankind. The dullest understanding can perceive and admit the necessity of laws, of judges to expound and of inferior officers to execute them. But when the necessity of practising lawyers is suggested, such admission, even from understandings that have

[24] M. de Custine.

been highly cultivated by study, and observation, and reflection, comes sometimes with reluctance and for the most part with allowance. Even men of letters, even poets, whom we have been taught to regard as our best teachers, are found to fling their pleasant satires at the lawyers. That seemed to be a most unhappy stress of difficulties upon one of Lord Byron's heroes when

> 'No choice was left his feelings or his pride,
> Save death or Doctors' Commons—so he died.'

We have read of the Gammons and Heaps, the Buzfuzzes and Tulkinghorns, and we smile at the absurdities and shudder at the iniquities of such a class of fools and rascals.

Yet lawyers live and prosper. With the increase of wealth and the advancement of civilization, they multiply in numbers, they rise to the highest places, and they lead in all the legislation which controls the world. In public they are the framers of laws, international, constitutional, and municipal: in private they are the counsellors of the people, in the ascertainment of all their rights of person and property, and then they make their last wills and testaments, and settle and distribute their estates after they are dead. We may have our suspicions, and apprehensions, and dislikes of lawyers as a class; but every one of us who has anything which he desires to keep for himself or for those who are to come after him, knows one among them who receives his most intimate confidence, and in whom he feels that his surest reliance, whether he himself be to live or to die, may be placed. Him he consults, both in the matters of his business and the matters of his conscience; and none but lawyers know how much wicked litigation has been avoided, how much meanness has been repressed, how much justice has been wrung for the weak and the innocent out of the hands of the powerful and the guilty—all in the secret counsellings of lawyers' offices.

Let us inquire somewhat into these contrary opinions. Why this suspicion in the general, and this confidence in the particular? Why these universal warnings against the class, and this life-long resort to the individual in all the most important and secret affairs of life? We cannot undertake to answer

these questions fully. A Frenchman once said, that every lover has no doubt of the infidelity of all mistresses except his own. Something of this there may be in the relation of lawyers and clients, and indeed in every relation where confidence must be given, because it renders one miserable and afraid to withhold it. But the better and more substantial causes are other than such as this. We shall mention one or two.

We must premise what we have to say about the suspicions concerning this class of professional men wherever it exists, by observing that they attach to them *as lawyers*. We have sometimes been intensely amused to notice how many persons have been puzzled by their own conflicting sentiments regarding some of the best men of our acquaintance. While the latter have been known to be perfectly upright in their personal concerns, beloved in their families, and admired by all their neighbors for being kind and liberal, the former have seemed to be touched with an indefinable sort of compassion or regret at being obliged to consider them as unscrupulous in the court-room, mystifiers of the law, perverters of the truth, and the fast friends of knaves of many descriptions.

The principal reasons for these irreconcileable opinions, are such as grow partly out of the law itself, and partly out of some misapprehensions as to the duties of lawyers: misapprehensions that are not confined to outsiders, but are held by not an inconsiderable number of the profession itself. Especially is this the case with that system of laws by which the people of this country and those in Great Britain are controlled. Our ancestors, so far removed from the ancient seats of European civilization, had the misfortune to fail to obtain the benefits of the Civil Law, that best and noblest monument of genius that was ever erected. Founded upon the teachings of the wise and good of all nations,[1] it enjoined not only the fullest justice, but it invited to the most delicate and scrupulous honor. It sought to lift mankind out of the fiery struggles, the selfish aims, and the mean desires of life, and present to their view a

[1] In the year B. C. 452, three Commissioners were sent 'beyond seas' to collect, in Greece especially, such notices of the laws and constitutions of other peoples as might be of service to the wants of Rome.—*Grapel on the Civil Law.*

higher scale, yet fully practicable for this world, on which justice and honor might journey, hand in hand, and all men, great and small, might joy in the sight. To live justly, to hurt no man, to give every one his own, were its leading maxims, and whoever followed them strictly attained as close an approximation to perfection as is in the capacity of human nature. What people were those Romans! Great in all things; even in those which time and different civilizations have destroyed or modified; but greatest of all in this, that their laws, the work of all their ages, are yet made to control all the countries over which their rule was extended.

But our ancestors, separated from the rest of the world by intervening seas, in a bleak region, where to live was difficult, and poverty was a more common and a harder misfortune than in the South, in the absence of wise men to think and devise for them, could only find laws for themselves in the midst of their dealings among themselves. In the failure of positive legislative enactments, their usages became the standards by which the common disputes were to be composed. Out of these usages, some of them absurd, some of them atrocious, sprang up that Common Law which, with what modifications it has undergone in the lapse of centuries, together with such restraints as Equity has been obliged to impose whenever its operation has been grossly unconscionable, is the system under which we live. Less humane than the Civil Law which was founded upon the idea of what mankind ought to be and might be, it has been builded upon the observation of what mankind *are*. Yet it is a great system, and in the main sufficiently regardful of the rights of those who have it to obey. If it seems sometimes to present temptation to bad men to entrap the unwary, its general provisions are designed to afford abundant protection to the circumspect; and the tendency of recent legislations and recent judicial rulings is, we are gratified to observe, in the direction of that larger and more generous policy which recognizes in humanity the possibilities of things higher than mere common honesty, and persuades to their exercise. Nor can we forbear to admit that among the Romans there were tricksters who were at once the disgrace of the pro-

fession, and the butt of the satirist's ridicule, and the honorable man's contempt. There were the *Leguleius* [2] and the Rabula, [3] the former a mere man of books, and the latter a mean pettifogger. They had their ways in Rome as their likes have them with us, and as all such characters in all vocations will have their ways until the world becomes many times wiser than it is or has been.

Yet every system of laws must necessarily fall short of some of its purposes, and thus create in the minds of men unlearned in its mysteries incorrect views of the duties of those who practise it. The law is founded upon general principles, the very universality of which sometimes must operate disastrously in particular cases, and give to bad men the opportunity to injure the just with impunity. In vain did the Prætor among the Romans, and in vain do Courts of Equity with us interfere by injunction with their strict enforcements, whenever their execution is unconscionably oppressive. There are frauds and other wrongs which no Courts can reach, which spring from the very laws which were intended to prevent them, and which do prevent them in general. Thus, the statute for the prevention of frauds, a most wise and beneficent law, offers temptations to the dishonest, of which they too often avail themselves to ensnare the upright. So the maxim, '*ignorantia legis non excusat*,' necessary as it is, operates most injuriously sometimes, and it thus operates most frequently upon those who, being most honest, are least apprehensive of suffering wrong. Neither lawyers, nor Courts, are responsible for these infirmities, which are but evidences to be added to those furnished by other systems of man's devising, that nothing he does can be made perfect.

Difficulties of the sorts just mentioned, (and we may allude to others as we proceed,) common to all laws, and some peculiar to those under which we live, lead to misapprehensions as to what are the duties as well as what are the rights of lawyers.

[2] 'Qui enim leges, quas memoria tenet, non intelligit, Leguleius vocatur a Cicerone.' Heineccius. Elementa Juris.

[3] 'Qui ergo nulla accuratione juris notitia imbutus, cruda studia in forum propellit, evertendisque aliorum fortunis quaestum facit, Rabula vocatur ab eodem Cicerone.'—*Ib.*

It is worthy of remark, that many men, whose careers, while at the bar, were not very remarkable, whether in the matter of professional ability, or professional deportment, when they have gone upon the bench, have risen in a comparatively brief period into unexpected and extravagant credit. The people, from having seen such men practise for a long time those little arts which inferior minds are the quickest to learn, seem often to be thankful to see such a man lay all such arts aside, rule vexed questions without embarrassment, and endeavor, with decent magisterial severity, to repress all unbecoming things in the officers of his Court. Now it is much easier to decide a case than to argue it. Some men, though feeble lawyers, make respectable judges—not great judges—for these can be made only of great lawyers. Such a judge, if he preside over an able bar, and if with ordinary understanding he have acquired a fair professional education, may decide most cases aright. Besides, the mere exaltation to office carries to the majority of mankind the credit of deserving it. Lord Jeffreys said to Robert Wright, who was notorious both for his ignorance and his knaveries, 'As you seem to be unfit for the bar, or any other honest calling, I see nothing for it but that you should become a judge yourself;' and in spite of the remonstrances of the Prime Minister, he was knighted, and afterwards made Lord Chief Justice of England. This is an extreme case, we admit, but there was some wisdom (of its kind,) in the magnate who thus elevated him, and who foresaw that much of his unfitness for office would disappear from the eyes of men on the day of his installation.

But what is yet more to be noticed in this connection is this: The duties of a judge are essentially different from those of a lawyer. Upon the former there is the obligation, formed by his oath and the solemn behests of office, to pursue the *truth*, singly and always. But the truth in judicial causes has many similitudes, and is difficult to be ascertained, and varies with every circumstance of life. Out of the innumerable transactions of mankind, and the multifold and subtle agencies which bring them on and attend and follow them, there must constantly arise, even among the upright, conflicts of opinion re-

garding the ultimate truth, and the best legal minds will differ as to where it is to be found. The judge himself is often incompetent to its ascertainment until after argumentation between these contending similitudes. It is, therefore, not only the right of the advocate, but it is his duty to present his similitude with whatever ability he can command, to strive for its establishment, provided that he attempt no perversions, either of facts or of laws already ascertained, and feel in his breast throughout the conflict a love for the honor of his profession, and a reverence for the justice, which it is his mission to conserve, that are superior to the desire for his client's success, and the reward which is to follow it. A rule of morals which would fix his responsibilities higher than this would be unreasonable and impracticable.

It is after, and by means of, the contests of men like this that the judge, whose understanding meanwhile has been oscillating between contending similitudes, decides which is the real truth, and which is only its image. When this decision is rendered in the unimpassioned and decorous terms becoming such a tribunal, although it is frequently rendered with hesitation, it is curious to see how submissively bystanders bow to the judgment, and with what admiration and even reverence they contemplate the calm dignity so unlike the heated combats of the men to whose elaborate endeavors, though unknown to them and too often unacknowledged by the Court, he is indebted for the power to decide aright when he does so decide.[4]

It is thus that many persons while they condemn the advocate, revere the magistrate. With the former they suppose the love of truth to be behind the desire of fame and especially of money. The latter, upon that lofty seat, is regarded as freed from the love of praise and pelf, above all prejudice and passion, and taking an almost holy delight in frowning upon the fierce conflicts of the world and its representatives, in estab-

[4] Cicero, whose work on morals is the greatest of all uninspired writings, allows a little more latitude to lawyers. 'Judicis est,' he says, 'semper in causis verum sequi; patroni, nonnunquam veri simile, etramsi minus sit verum, defendere.'—De Officiis, Lib. 11, Cap. XIV. But he does so with some hesitation, and only upon the authority of Panaetius. Thus he continues: 'Quod scribere (præsertim cum de philosophia scriberem) non auderem, nisi idem placeret gravissimo stoicorum Panaetio.'

lishing justice, and maintaining the peace. They seem to regard lawyers as the especial enemies and persecutors of these benign things, justice and peace, and but for that blessed man on the bench they would be lost in the midst of their subtleties, and quillets, and clamorous contentions.

It is remarkable that while we can make allowance for the progress of every other science and every other business of life, we cannot allow for mutations in that which is at once the most variant and profound and important of all. At every session of every court of extensive jurisdiction, there arise disputes which involve new questions, or variations of old questions, and which must be settled anew, and that only by long, ardent, and able argumentation. To wonder at this eternal conflict is as unreasonable as to wonder at the various faces, and forms, and dispositions of men. The principles of the law have grown, like the human race, from a few in the beginning up to ever increasing multitudes, generations of the one dying away and generations of the other becoming obsolete, yet every generation of both inheriting from its predecessors something which must be made to conform to the multiplying necessities of the world. These necessities arise in all places where the hands or the understandings of men are wont to labor in order to increase whatever they may wish to have for any of the purposes of life. They arise day by day, in the field of the farmer, in the shop of the mechanic, in the storehouse of the merchant, in the cloister of the student, everywhere, on the land, upon the waters, in the air, wheresoever God has allowed men to abide, or to explore, in order to find and to gather whatever it is lawful to possess. Thus, with the lapsing years, and the changing and multiplying pursuits of men, new principles have to be established, new punishments must be applied to new offences, and sometimes to old ones, when by the changes of manners and tastes they have grown to be inadequate or oppressive. Inasmuch as the laws are general in their terms, and cases arising under them are special in their own particulars, every judge needs new argumentation, long, and able, and ardent, we repeat it, in order to be

enabled to find, in the midst of these accretions from every source, the Truth, which it is his province to dispense.

'What is truth,' said jesting Pilate, 'and would not stay for an answer.' Wiser and better men than Pilate ask the same question after long, and patient, and loving search. That truth is difficult to be ascertained, the thousands of sects, and parties, and wars, both of books and swords, declare. On the question of what is truth, good and wise men differ even as do bad men and fools. In our degenerate estate, truth seems to assume many shapes, and to vary them in different places and before different beholders. It was a beautiful fancy of the poet, in which the followers of truth are likened to the bereaved Isis and her priesthood in their pious search for the mangled and scattered members of the body of the good Osiris. Philosophers and law-givers admit the impossibility of fixing perfectly just principles of truth even in the general. 'We have no solid and express effigy of Law, and of Justice, her sister. We can only employ their shadow and their images.' These are the words of one who, in our opinion, was as complete a man as has lived in any time—Cicero, the lawyer and orator, the consul and philosopher. Yet, in praising even the golden rule of the Civil Law, that all transactions of business ought to correspond with the good conduct of good men with one another, he sighed to be compelled to add these following: 'But who are good men? and what is good conduct? These are great questions.'[5] In the numberless relations of men, good and bad, among the different views which, from their various positions they have of the right, an approximation to its ascertainment is all that can be hoped for, and while we believe that this approximation to all its intentions is closer in the law than in any other science not based upon mathematical demonstrations, this is due mainly to those same forensic conflicts which men are so wont to criticise and to blame. There is nothing, therefore, in the fancied anomaly of an honest man

[5] 'Sed nos veri juris germanæque justitiæ solidam et expressam effigiem tenemus; umbra et imaginibus utimur. Quam illa aurea, UT INTER BONOS BENE AGIER OPORTET ET SINE FRAUDATIONE! Sed, qui sint boni, et quid sit bene agi, magna quæstio est.'—*Cic. De. Off., Lib. III., Cap. XVII.*

who is a dishonest lawyer. Whenever such a man comes to the Bar, there comes a mighty blessing to his neighborhood. If, in the ardor of the devotion which he carries to the causes of his clients, he seems sometimes to combat too zealously for his own similitude before the real right has been ascertained, we shall make a great mistake if we suppose that the real right can be ascertained otherwise than by the combats of him with others such as him. And we shall make a greater mistake if we suspect that he has lost, or is apt to lose, the heart to love and adore the truth when, after such combats, it is unveiled before his eyes.

But the misapprehensions that are most hurtful to the profession are those which are entertained by a considerable number of its own members. For the infirmities of these, in spite of its shining ornaments, it has always suffered and must continue to suffer. A lawyer who is a bad man is the most mischievous and dangerous person with whom one can be confronted. It is sad to contemplate the annoyance and distress which such a man may inflict, during a lifetime, upon even the good men of society. Such a man may become a spy upon other men, and obtain an incredible amount of acquaintance with all their most important concerns. This is especially the case in agricultural communities, where men are less familiar than those in cities and towns with those forms of business which are necessary to its safe and proper conduct. In the intercourse of the citizens of such communities, the omission of such forms with the best and most honest men render their transactions unintelligible to those who, after lapse of time, come to look upon their records. The confidence which they have in one another, so beautiful to behold, and so sweet to feel, induces a neglect much beyond what mere ignorance would create; and the usages of friendship and good neighborhood make them satisfied with settlements which are too often unaccompanied by written memoranda. By and by, some of these good men become alienated from one another. By and by some of them die. Old friendships seldom descend from one generation to another. Besides, it is a sad truth that the greatest robberies are those that are committed by the living upon the dead.

All thieves, little and great, from the grave-digger and the coffin-maker upward, understand that.

Now this especial bad man, who is worse than all other thieves and robbers, and whose wont it has been to prowl about Probates' offices, and pore over ancient and imperfect records, and pick news-mongers and retailers of old scandals, makes up *his* record, and to the covetous, and prodigal, and bankrupt, he complains how they have been wronged, and insinuates how, through his means, their wrongs may be redressed; and then a small retainer and a great contingent, are the preliminaries to suits upon Administrators' bonds or to Bills in Equity, which charge every form of mismanagement and fraud upon the best men and involve them or their representatives in long and ruinous litigation. We have known very many of such cases, and we have sighed, and could have wept to witness the misery which they have produced. Many a good man, in his abhorrence of courts, though conscious of perfect innocence, and though assured by reliable counsel of eventual release, prefers to buy his peace with a price which enables the mean pettifogger to live in comfort for a long time afterwards. Another, less timid and less averse to strife, elects to fight it out on the line proposed, indulging himself to an occasional imprecation upon the head captain of his enemies, and in time may have his verdict. But the payment of his own counsel, the charge of sundry items, about which he and all his friends have forgotten, the fees of witnesses, the loss of other interests by his attendance upon courts, all convince him that his more timid neighbor, who bought himself off, was wiser than he who fought himself out; and he is denied even the consolation of feeling that his imprecations have done either harm or good to the man whom he is right in regarding as the worst of all rascals. Cases like these are frequent in some communities, and they sometimes occur in all. How many miseries they produce, how many alienations of friends and families, how many wrongs of all sorts and forms, only God above knows. Perhaps in this we mistake. Perhaps they are all known to the great Spirit of Evil below, and he has his antepast of enjoyment. If not now, they will be known in

season; for they are done by his inspiration, and upon him will devolve their settlement at the last.

Much above those we have described is another class whose misapprehensions as to the scope of their duties, are more hurtful to the profession than they are apt to be aware. With this class the standard of professional deportment does fall somewhat below that which they are in the habit of maintaining in the other relations of life. In the eagerness with which many young men desire notoriety, which they suppose to be necessary to speedy success, they are thrown into cases of doubtful right by the aid of injudicious friends, or by their own volunteering; and thus they form habits of asseverating unformed opinions and clamoring for doubtful points which must tend to diminish the love, and even obtund the sense of truth. Some of such men come to believe that it is not wrong to take any case that presents itself, and having appeared in it, that their duty, or at least their right, is to push it along without considering any question except what may appertain to the interests of their clients. With an able and upright judge, these are not wont to do a very great amount of mischief to the public; but they hurt both themselves and their better brethren. They hurt themselves by failing, through their own fault, to rise as high as different deportment would elevate them; and they hurt their better brethren by carelessly lowering their profession in the eyes of mankind and subjecting it to unjust reproach. And they assuredly do some harm to society in this, that their too frequent and unfair defence of transactions plainly unjust, makes them often appear to disregard the principles both of law and morality.

It is an unhappy mistake that many lawyers who are not bad men make, in believing that the *whole* question of conscience resides always with their clients. Every lawyer should feel that it is his duty to be a conservator of those things which the laws enjoin; and while he may rightfully aid a client in obtaining the benefit of any law that is applicable to his case, he ought to counsel against the acceptance of that benefit when it is to operate gross injustice to others. For example: While it is not unprofessional, nor in any degree wrong, to

file a plea of usury, he owes this much to everybody, himself, society, and especially his client, to persuade him, if possible, to refrain from accepting a dishonest release from the fulfilment of his own solemn obligation. The men who refuse to consider such counsel as coming within the intention of their professional duties, may be, and many of them are, upright in their own personal lives, humane, generous, social; but they fall short of conserving, and even of beholding, the great, superior purposes of the law, and they miss that very highest felicity of this lower life, the opportunities of doing good.

But there is a class of lawyers who do well employ these blessed opportunities. Many such there are in many communities. Would that there were more, and that they were in all. To be such men the highest intellectual abilities are not requisite. While in that middle class just described, there are sometimes found men of intellect enough to rise to any eminence by the persistent love and pursuit of justice, it is most pleasing to find in this upper class men in whom such love and pursuit have lifted understandings that are less than first-rate up to the power to see and to advocate truth, which is superior to the genius that, for the want of these virtues, loses in the lapse of time, both the power to see and the power to advocate. For truth, even in this world, rewards her worshippers, while she punishes her enemies. The latter she sometimes blinds in the knowledge of how to come to her shrine, even when they seek to come with serious devotion, but after having been wont to come too seldom and with too reluctant sacrifice. The former, who never bow the knee elsewhere, become so accustomed to her presence and her inspiration, that they seem to partake even of her divine nature. How many men have we known at the bar who, although they did not seem at first to be qualified for its successful pursuit, yet, by patient labor and the continuous practice of integrity, have attained to fame; while others, apparently more gifted, by failing to learn or to practise the great duties of the profession, have ended their careers without honor.

Now while we are far from claiming for such men perfection, we do think that they attain as close an approximation to it as

any men in any earthly vocation; and that in the matter of usefulness they ascend higher than all others. The science of the law embraces every business of life. Those two things, *rights* and *wrongs*, attach themselves every moment of time, to all mankind from the highest to the lowest. They are as interesting to one man as they are to another; the poor as well as the rich. The houseless beggar, the sad lunatic, the raving maniac, the driveling idiot, the infant, the infant not yet escaped from its mother's womb, the outlaw, the felon, yea, the convicted felon who is awaiting in his cell the day of execution, all have their rights and may have their wrongs; and the law irregular, and desultory, and rambling, and self-contradicting as it seems to be, is ever striving to provide for them all. There is nothing more important, indeed, in the merely human business of life, there is nothing so important as that these rights and wrongs be well understood, in order that the former be faithfully defended, and the latter be adequately redressed. It is a happy thing for society when a young man of the true generous breed applies himself to this good work. In his early years he gives, and he has to give to it his days and his nights. While he is learning it well, his youth is gone. Before he has learned it all, age comes upon him and he retires to die. Yet, by the full ripening of his manhood, he has reached a position in which he may safely be trusted by all who need his knowledge and his service. When men come to him for counsel the studies of years enable him, and the habitual practice of honor prompts him, to bestow that counsel wisely and truly. When their rights have been assailed, he defends them against every form of attack. When they are only supposed to be injured, he counsels them to withdraw from the contest, and if he be not hearkened to, he dismisses them to other men who are less scrupulous. When from the peculiar circumstances he be uncertain sometimes whether those rights be assailed or not, then, unless they can be adjusted by compromise, he brings or defends their suits, and maintains his own similitude of the right until judgment is rendered by the courts.

Now it is just here, in courts, that are to be seen those most common misapprehensions of the public in regard to the duties

of lawyers. They think it strange that two men, who claim to be considered upright and sincere, should meet from court to court, from day to day, in constant, ardent antagonisms. But the public does not sufficiently consider that these antagonisms have their inception with parties itself, and that it rarely, if indeed it ever happens, that the most honest client blames the ardor of his patron's advocacy. Then the public does not reflect that its non-acquaintance with laws, except their most general principles, disqualifies it from recognizing the infinite variety of circumstances which may take, or seem to take, a newly arisen case out of the circle of former precedents, and that judges, notwithstanding their decent deportment and learned books, are incapable, until after such argumentation, to determine how he ought to adjudicate. Besides, among the different men who have been upon the Bench, rulings, even upon the same points, have been variant acccording to their capacities, and dispositions, and likings, and prejudices. It makes a vast difference whether Labeo be the magistrate, or Capito; whether Mansfield or Kenyon. While the mind of one leans to liberal constructions, and seeks to bring the laws along with the changing conditions of a nation's civilization, that of another is found to overrule all innovations, and strives to restore every ancient landmark that, from whatever cause, has been, or he believes to have been, removed.

This reference to the different sorts of judges opens to our view a wide field, if we had the time to speculate upon it. We have said that it was less difficult to adjudicate a case than to argue it. But it must not be understood that we maintain that it is not very difficult to be a good judge. To be a good judge requires a combination of so many gifts that it *ought* to be surprising to consider how many men desire that office, and what kinds of men sometimes are nominated to it. One of the most difficult questions for statesmen to determine has been, how it is best for judges to be made, and what should be the duration of their incumbency. Many a man has risen from the Bar whose judicial career has widely differed from that which his professional behavior foretold. It is singular what a temptation there seems always to have been to newly-

elected judges to distinguish their administrations by unexpected deflections from the ways of former administrations. From the impossibility, resulting from the infinitude of its subtleties, of fixing perfectly settled principles of law in all cases, a hazardous amount of discretion must be allowed to every judge which he may hurtfully abuse. It was so much abused in the times of our ancestors, that Lord Camden designated it 'the law of tyrants.' In its exercise many a fantastic trick has been played by many a magistrate, small and great. In the bewilderment in which juries, unlearned in the law, are wont to be involved by the strivings of opposing counsel, the magistrate has a fair opportunity to exercise that discretion according to his temper, his constitution, his passion, or the expectations that he may found upon the opinions which men may have of his administration. The histories, and the traditions, and our own observations tell us how capricious that exercise has been. In the early struggles between liberty and prerogative, it varied little from a decided preponderance in favor of the latter. We shudder to know that the Bench, that most solemn of all places upon earth, except the Pulpit, has been pressed by so ignorant a knave as Wright, so loathsome a mass of moral and physical depravity as Saunders, so bloody-minded a villain as Scroggs, so hideous a devil as Jeffreys. Such men passed away with the despotisms that created them, and there is little danger that their likes will be seen again. Yet, under the rule of upright judges, caprice, or some other infirmity, single among many great virtues, sometimes hinders that fair and equable dispensation of justice which all good men desire. In one, there is that disposition before mentioned, to distinguish his administration by rulings which overturn past rulings that are sufficiently good precedents. In another, there is an overweening ambition to reform society in impracticable ways, as by indecent harshness to defendants in criminal prosecutions, and a too speedy suspicion of frauds in some or other sides in civil suits. 'The only shade,' says Lord Campbell, 'in the character of Chancellor Osmond was his great severity to penitents, which was caused by his own immaculate life.' What a commentary on life!

on the life of even a good man! Even Sir Matthew Hale, great and good as he was, was *so* good that he believed it to be a part of his mission to hang poor witches, and, in the nervous apprehension of being suspected of selling justice, sometimes hindered or delayed it. It seems almost to be a requisite in a judge, (at least of a Criminal Court,) that he have some infirmity for which he desires and needs forbearance and forgiveness. A man who leads what is generally styled an 'immaculate life,' when raised to the Bench, is often strangely apt to regard his elevation as a special and blessed interposition of Providence for the good of mankind, and to seek for the culmination of his fame by the attempt of a wholesale clearance of vices as well as crimes. In this country it is especially difficult to obtain able judges, because the salaries are too small to tempt the best lawyers, unless they be already rich, or be ready to retire from the labors of the profession, or unless they prefer the honors of office to its other rewards.

In the presence of courts presided over by magistrates of so various casts, lawyers, who are as good men as the earth ever produced, are made sometimes to appear at a disadvantage that is undeserved. The court being the standard, both of law and every propriety, and having frequent occasions to overrule even its best and ablest advocates, many men feel surprise mingled with reproach, that such men should so often maintain, without blushing, such apparent wrongs and absurdities. Such persons, honest themselves, cannot understand how men, who would like to be considered as honest, can appear at the instance of a mean or bad man against the charge of a good one. But let it not be forgotten, what we have said before, that every human being in society has rights, and that they are as sacred and as dear in one as in another. The good man can no more take from the bad what is his due, than the bad can take it from him. If a poor knave have a legal right which a good man, as does sometimes occur, cannot for many reasons recognize, it would be a shame upon the law if he could not find an advocate among the best and bravest at the bar to aid him in its vindication. Indeed it often requires the best and bravest to vindicate rights which, to good men, seem sometimes to be so

strangely located. Therefore, no rule could be made that would fall further short of attaining a just adjudication of causes, than the rule of deciding according to the relative standing of parties in litigation. As the advocate cannot determine by such a standard, no more can the magistrate. Let us imagine one ruling thus summarily. Let him open his docket and turn to a couple of cases. A *against* B. By the Court. 'Let the defendant have his verdict, since he is a good man and A a bad.' C *against* D. By the Court. 'In this case, the plaintiff must have judgment, he being the good man.' But, may it please your Honor, who then are good men? Alas! says Cicero, 'That is a great question.' The truth is, unhappy as it is, that all men, good and bad, make mistakes concerning the rights of others, when they seem to conflict with their own. More unhappy yet it is, that good men are very often apt to undervalue the rights of the bad. The bad have no friends, and they deserve to have none, save in the laws of the land. These laws cover all. Designed mostly to protect the good from the bad, they must afford also a shelter to the bad whenever they are too rigorously pursued, or whenever the few rights which they have not forfeited, are assailed.

From all the considerations hereinbefore mentioned, the nature of municipal laws in general, and the Common Law in particular, the infinite variableness of its application to the different circumstances of men's lives, the frequent impossibility of its ascertainment except by means of public discussions, the habits of some lawyers, and the characteristics of some magistrates, the large number of shining lights of the profession, among whom are to be found some of the kindest and justest men, are undervalued by the world. Too many of the world regard all lawyers alike, as delighting in strifes, as barrators, disturbers of peace, and unscrupulously eager for fame and money. Yet, how many of these greater lights are never found in offices or in the paths that lead to them. How few of them accumulate fortunes. What becomes of the great fees which look so like, what they are sometimes styled, extortions upon the estates of men living and dead? First, these fees are

neither so large nor so frequent as is believed. Then, they go in humane benefactions, in liberal allowances to their families, in answerings to charitable claims, in purchasing of books, and pictures, and objects of virtu, and in other ways that commend themselves to men of generous minds and cultivated tastes.

Such men as these are the most efficient conservators of social tranquillity. Their profession affords them the most frequent opportunities, and their humanity prompts them ever, to be such. Instead of being the fomenters of useless litigation, their counsel is mainly given in discouraging it. While they are ever ready to defend the good against the assaults of the bad, they are as ready for that other ungracious but necessary duty, the defence of the bad against the assaults of the good. And it is their crowning honor that, through their means, a vaster amount of litigation is withheld from the public than is inflicted upon it.

If we could know all that is said and done in the offices of this class of men during one year, we should be astonished to find how much distress and anguish have been spared to private men, and how much expense and disgust have been turned away from the public. It is impossible to calculate the good that is done by such men, because it is impossible to know its greatest and noblest part. This part, like all the best charities, is done in secret. It is in the secret chambers of offices, that selfish men are warned from the prosecution of their aims. It is there that the thoughtless are admonished of the laxity in business or in conduct which is to be stayed in order to prevent pecuniary and moral ruin. It is there that just and liberal settlements are wrung from hard parents and mean husbands. It is there that bad men, who come to have unjust testaments executed, are made ashamed and afraid to prolong their injustice beyond the grave and into the eternal world. But it is especially to the upright that blessings come from these secret chambers. It is there that they are forefended against the evil plots of the vicious, and that they are aided and guided in their benign endeavors for the good of others. It is there that they are comforted in their anxieties regarding the bestowment of the fruits of their labors upon the objects of their love who are

to survive them. And then, it is there, sometimes, that mirrors are held before their eyes, in which they are made to behold in their own characters things that surprise and pain them; yet, by the sight of which, they are made humbler and better. This is, indeed, the true charity. To our minds this is the very exaltation of charity. The great fees come not from these silent labors. They come from those loud and fierce antagonisms which these silent labors often prevent, and are intended to prevent. This is the charity that is kind. And it is the more beautiful and blessed, in that it doth not behave itself unseemly, but performs its most benign work unnoticed by the world.

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ART. V.—*Cours de Philosophie Positive.* Par M. Auguste Comte. 6v. 8o. Paris. 1830–42.

2. *History of Civilization in England.* By Henry Thomas Buckle. London: John W. Parker & Sons. 1858.

3. *A System of Logic, Ratiocinative and Inductive.* By John Stuart Mill. New York. 1846.

4. *An Historical and Critical View of the Speculative Philosophy of Europe in the Nineteenth Century.* By J. D. Morell, A. M. New York. 1848.

'Positivism,' says M. Guizot, in his *Meditations*, 'is a word—in language, a barbarism; in philosophy, a presumption.' Its genius is sufficiently indicated by its chosen name; in which it qualifies itself, not like other sciences, by its object, but by a boast. The votaries of physics have often disclosed a tendency to a materialism which depreciates moral and spiritual truths. The one-sidedness and egotism of the human understanding ever inclines it to an exaggerated and exclusive range. Man's sensuous nature concurs with the fascination of the empirical method applied to sensible objects, to make him overlook the

spiritual. Physicists become so inflated with their brilliant success in detecting and explaining the laws of second causes, that they forget the implication of a first cause, which constantly presents itself to the reason in all the former; and they thus lapse into the hallucination that they can construct a system of nature from second causes alone. This tendency to naturalism, which is but an infirmity and vice of the fallen mind of man, no one has avowed so defiantly, in our age, as M. Auguste Comte, the pretended founder of the *Positive Philosophy*, and his followers. His attempt is nothing less than to establish naturalism in its most absolute sense, to accept all its tremendous results, and to repudiate as a nonentity all human belief which he cannot bring within the rigor of exact physical science.

Although it is not just to confound the man and the opinions, we always feel a natural curiosity touching the character of one who claims our confidence. Guizot says of him, when he appeared before that statesman, with the modest demand that he should found for him a professorship of the *History of Physical and Mathematical Science*, in the College of France: 'He explained to me drearily and confusedly his views upon man, society, civilization, religion, philosophy, history. He was a man single-minded, honest, of profound convictions, devoted to his own ideas, in appearance modest, although at heart prodigiously vain; he sincerely believed that it was his calling to open a new era for the mind of man and for human society. Whilst listening to him, I could hardly refrain from expressing my astonishment, that a mind so vigorous should, at the same time, be so narrow, as not even to perceive the nature and bearing of the facts with which he was dealing, and the questions which he was authoritatively deciding; that a character so disinterested should not be warned by his own proper sentiments—which were moral in spite of his system—of its falsity and its negation of morality. I did not even make any attempt at discussion with M. Comte; his sincerity, his enthusiasm, and the delusion that blinded him, inspired me with that sad esteem that takes refuge in silence. Had I even judged it fitting to create the chair which he demanded, I should not for a moment have dreamed of assigning it to him.

'I should have been as silent, and still more sad, if I had then known the trials through which M. Auguste Comte had already passed. He had been, in 1823, a prey to a violent attack of mental alienation, and in 1827, during a paroxysm of gloomy melancholy, he had thrown himself from the Pont des Arts into the Seine, but had been rescued by one of the King's guard. More than once, in the course of his subsequent life, this mental trouble seemed upon the point of recurring.'

The reader, allowing for the courteous euphemism of Guizot, will have no difficulty in realizing from the above, what manner of man Comte was. His admiring votary and biographer, M. Littré, reveals in his master an arrogance and tyranny, which claimed every literary man who expressed interest in his speculations, as an intellectual serf, and which resented every subsequent appearance of mental independence as a species of rebellion and treachery to be visited with the most vindictive anger. That his mental conceit was, beyond the 'intoxication' which M. Guizot terms it, a positive insanity, is manifest from his own language. On hearing of the adhesion of a Parisian editor to his creed, he writes to his wife: 'To speak plainly and in general terms, I believe that, at the point at which I have now arrived, I have no occasion to do more than to continue to exist; the kind of preponderance which I covet cannot henceforth fail to devolve upon me.' . . . . 'Marrest no longer feels any repugnance in admitting the indispensable fact of my intellectual superiority.' And to John Stuart Mill, at one time his supporter, he wrote of 'a common movement of philosophical regeneration everywhere, when once Positivism shall have planted its standard—that is, its lighthouse I should term it—in the midst of the disorder and of the confusion that reigns; and I hope that this will be the natural result of the publication of my work in its complete state.' (This work is his *Course of Positive Philosophy*, finished in 1842.)

Positivism takes its pretext from the seeming certainty of the exact sciences, and the diversity of view and uncertainty, which have ever appeared to attend metaphysics. It points to the brilliant results of the former, and to the asserted vagueness and barrenness of the latter. It reminds us that none of

the efforts of philosophy have compelled men to agree, touching absolute truth and religion; but the mathematical and physical sciences carry perfect assurance, and complete agreement, to all minds which inform themselves of them sufficiently to understand their proofs. In these, then, we have a satisfying and fruitful quality, Positivism; in those, only delusion and disappointment. Now, adds the Positivist, when we see the human mind thus mocked by futile efforts of the reason, we must conclude, either that it has adopted a wrong *organon* of logic for its search, or that it directs that search towards objects which are, in fact, inaccessible, and practically non-existent to it. Both these suppositions are true of the previous philosophy and theology of men. Those questions usually heated by philosophy and theology which admit any solution—which are only the questions of sociology—must receive it from Positivism. The rest are illusory. History also, as they claim, shows that this new philosophy is the only true teacher. For when the course of human opinion is reviewed, it is always found to move through these stages. In its first stage, the human mind tends to assign a theological solution for every natural problem which exercises it; it resolves everything into an effect of supernatural power. In its second stage, having outgrown this simple view, it becomes metaphysical, searches in philosophy for primary truths, and attempts to account for all natural effects by *à priori* ideas. But in its third, or adult stage, it learns that the only road to truth is the empirical method of exact science, and comes to rely exclusively upon that. Thus, argue they, the history of human opinion points to Positivism, as the only teacher of man.

But Comte, while he denies the possibility of any science of psychology, save as a result of his Positivism, none the less begins with a psychology of his own. And this is the psychology of the sensationalist. He virtually adopts as an *à priori* truth (he who declares that science knows no *à priori* truths) the maxim of Locke, *Nihil in intellectu quod non prius in sensu*, and holds that the human mind has, and can have, no ideas save those given it by sensitive perceptions, and those formed from perceptions by reflexive processes of thought.

Science accordingly, knows, and can know, nothing save the *phenomena* of sensible objects, and their laws. It can recognize no cause or power whatever, but such as metaphysicians call second causes. It has no species of evidence except sensation and experimental proof. 'Positive philosophy is the whole body of human knowledge. Human knowledge is the result of the study of the forces belonging to matter, and of the conditions or laws governing those forces.'

'The fundamental character of the positive philosophy is that it regards all *phenomena* as subjected to invariable natural laws, and considers as absolutely inaccessible to us, and as having no sense for us, every inquiry into what are termed either primary or final causes.'

'The scientific path in which I have, ever since I began to think, continued to walk, the labors that I obstinately pursue to elevate social theories to the rank of physical science, are evidently, radically, and absolutely opposed to everything that has a religious or metaphysical tendency.' 'My positive philosophy is incompatible with every theological or metaphysical philosophy.' 'Religiosity is not only a weakness, but an avowal of want of power.' 'The "positive state" is that state of the mind, in which it conceives that *phenomena* are governed by constant laws, from which prayer and adoration can demand nothing.'

Such are some of the declarations of his chief principles made by Comte himself. They are perspicuous and candid enough to remove all doubt as to his meaning.

He also distributes human science under the following classes: It begins with mathematics, the science of all that which has number for its object; for here, the objects are most exact, and the laws most rigorous and general. From mathematics, the mind naturally passes to physics, which is the science of material forces, or dynamics. In this second class, the first subdivision, and nearest to mathematics in the generality and exactness of its laws, is astronomy, or the *mécanique céleste.* Next comes mechanics, then statics, and last chemistry, or the science of molecular dynamics. This brings us to the verge of the third grand division, the science of organisms; for the

wonders of chemistry approach near to the results of vitality. This science of organism then, is biology, the science of life, whether vegetable, insect, animal, or human. The fourth and last sphere of scientific knowledge is sociology, or the science of man's relations to his fellows in society, including history, politics, and whatever of ethics may exist for the Positivist. Above sociology there can be nothing; because, beyond this, sensation and experimental proof do not go, and where they are not, is no real cognition. Comte considers that the fields of mathematics and physics have been pretty thoroughly occupied by Positivism; and hence the solid and brilliant results which these departments have yielded under the hands of modern science. Biology has also been partially brought under his method, with some striking results. But sociology remains very much in chaos, and unfruitful of certain conclusions, because Positivism has not yet digested it. All the principles of society founded on psychology and theology are, according to him, worthless; and nothing can be established, to any purpose, until sociology is studied solely as a science of physical facts and regular physical laws, without concerning ourselves with the vain dreams of laws of mind, free agency, and divine providence.

Such, in outline, are the principles of Positivism. Let us consider a few of its corollaries. One of these, which they do not deign to conceal, is a stark materialism. Their philosophy knows no such substance as spirit, and no such laws as the laws of mind. For, say they, man can know nothing but perceptions of the senses, and the reflexive ideas formed from them. 'Positive philosophy,' which includes all human knowledge, is 'the science of material forces and their regular laws.' Since spirit, and the actings of spirit, can never be *phenomena*, properly so called, events cognizable to our senses, it is impossible that science can recognize them. This demonstration is, of course, as complete against the admission of an infinite spirit as any other; and the more so, as Positivism repudiates all absolute ideas. Nor does this system care to avail itself of the plea, that there may possibly be a God who is corporeal. Its necessarily atheistic character is disclosed in the declaration, that true

science cannot admit any supernatural agency or existence, or even the possibility of the mind's becoming cognizant thereof. Since our only possible knowledge is that of sensible *phenomena*, and their natural laws, nature must of course bound our knowledge. Her sphere is the all. If there could be a supernatural event, (to suppose an impossibility,) the evidence of it would destroy our intelligence, instead of informing it. For it would subvert the uniformity of the natural, which is the only basis of our general ideas, the norm of our beliefs. Positivism is, therefore, perfectly consistent in absolutely denying every supernatural fact. Hence the criticism of its votaries, when like Strauss and Renan, they attempt to discuss the facts of the Christian Religion, and the life of Jesus Christ. Their own literary acquirements, and the force of Christian opinion, deter them from the coarse and reckless expedient of the school of Tom Paine, who rid themselves of every difficult fact in the Christian history by a flat and ignorant denial, in the face of all historical evidence. These recent unbelievers admit the established facts; but having approached them with the foregone conclusion that there can be no supernatural cause, they are reduced, for a pretended explanation, to a set of unproved hypotheses, and fantastic guesses, which they offer us for verities, in most ludicrous contradiction of the very spirit of their 'positive philosophy.'

What can be more distinctly miraculous than a creation? That which brings nature out of *nihil* must of course be supernatural. Positivism must therefore deny creation, as a fact of which the human intelligence cannot possibly have evidence. As the universe did not begin, it must, of course, be from eternity, and therefore self-existent. But, being self-existent, it will of course never end. Thus matter is clothed with the attributes of God.

The perspicacious reader has doubtless perceived that these deductions, when stripped of their high-sounding language, are identical with the stupid and vulgar logic which one hears occasionally from atheistic shoemakers and tailors. 'How do you know there is a God? Did you ever see him? Did you ever handle him? Did you ever hear him directly making a

noise?' Those who have heard the philosophy of tap-rooms, redolent of the fumes of bad whiskey and tobacco, recognize these as precisely the arguments, uttered in tones either maudlin or profane. Is not the logic of Positivism, when stated in the language of common sense, precisely the same?

Once more, Positivism is manifestly a system of rigid fatalism; and this also its advocates scarcely trouble themselves to veil. Human knowledge contains nothing but *phenomena* and their natural laws, according to them. 'The positive state is that state of mind, in which it conceives that *phenomena* are governed by constant laws, from which prayer and adoration can demand nothing.' 'The fundamental character of positive philosophy is, that it regards all *phenomena* as subject to invariable laws.' Such are Comte's *dicta*. The only causation he knows is that of physical second causes. These, of course, operate blindly and necessarily. This tremendous conclusion is confirmed by the doctrine of the eternity and self-existence of nature; for a substance which has these attributes, and is also material, must be what it is, and do what it does, by an imminent and immutable necessity. Positivism must teach us, therefore, if it is consistent, that all the events which befall us are directed by a physical fate, that there is no divine intelligence, nor goodness, nor righteousness, nor will concerned in them; that our hopes, our hearts, our beloved ones, our very existence, are all between the jaws of an irresistible and inexorable machine; that our free-agency, in short, is illusory, and our free-will a cheat.

But the positive philosophy, with its sweeping conclusions, influences the science of this generation to a surprising degree. We are continually told that in France, in Germany, and especially in Great Britain, it is avowed by multitudes, and boasts of prominent names. The tendencies of physicists are, as has been noted, towards Naturalism: the boldness with which the school of Comte lifted up their standard, has encouraged many to gather around it. Its most deplorable result is the impulse which it has given to irreligion and open atheism. Thousands of ignorant persons, who are incapable of comprehending any connected philosophy, true or erroneous, are emboldened to

babble materialism and impiety, by hearing that the 'positive philosophy' knows 'neither angel nor spirit,' nor God. And this is one of those sinister influences which now hurries European and American society along its career of sensuous existence. We detect the symptoms of this error in the strong direction of modern physical science to utilitarian ends. Even Lord Macaulay, in his essay on Bacon, seems to vaunt the fact that the new *Organon* aimed exclusively at 'fruit.' He contrasts it in this respect, with the ancient philosophy, which professed to seek truth primarily for its intrinsic value, and not for the sake of its material applications. He cites Seneca, as repudiating so grovelling an end, and as declaring that if the philosopher speculated for the direct purpose of subserving the improvements of the arts of life, he would thereby cease to be a philosopher, and sink himself into an artizan, the fellow-craftsman of shoemakers and such like. And the witty essayist remarks that, for his part, he thinks it more meritorious to be a shoemaker, and actually keep the feet of many people warm, than to be a Seneca, and write the treatise *De Ira*, which, he presumes, never kept anybody from getting angry. The truth, of course, lies between the unpractical spirit of the ancient, and the too practical spirit of the modern philosophy. Man has a body, and it is well to study its welfare; but he also has a mind, and it is better to study the well-being of that nobler part. Truth is valuable to the soul in itself, as well as in its material applications. To deny this, one must forget that man will have an immortal, rational existence, without an animal nature, when truth will be his immediate and only *pabulum*. So that an exclusive tendency to physical applications of science savors of materialism. To represent the splendid philosophy of the ancients as nugatory, is also a mischievous extravagance. It did not give them all the mental progress of the moderns! True. Perhaps no philosophy, without revelation, could do this. But it gave them the ancient civilization, such as it was. And surely, there was a grand difference in favor of Pericles, Plato, and Cicero, as compared with Hottentots and Australians! Pagans who, like the Positivists, have neither a psychology nor a natural theology.

When we look into Great Britain, we see startling evidence of the power of the new philosophy. John Stuart Mill presents one of these evidences. He has long since (in his *Logic*) committed himself to some of its most fatal heresies; and these he reaffirms and fortifies in his more recent *Examination of Sir William Hamilton's Philosophy.* He holds in the main to the dogmas of the Sensualistic Philosophy. He flouts the primitive judgments of the human mind. He intimates, only too plainly, the ethics of utilitarianism. He disdains the idea of power in causation, and reduces man's intuitive judgment of adequate cause for every known effect, to an empirical inference. Matter he defines, indeed, as being known to the mind as only a possibility of affecting us with sensations; thus parting company, in a very queer way, with his natural kindred, the more materialistic positivists. While upon the subject of fatalism and free-will, his 'trumpet gives an uncertain sound,' he deserves the credit of correcting some of the errors of both the opposing schools, and stating some just truths upon these doctrines. His association with the anti-Christian school represented by the *Westminster Review* is well known. We are now told that Mill is quite 'the fashion' at one, at least, of the Universities, and is the admitted philosopher of Liberalism.

Another of these evil portents in the literary horizon is Henry Thomas Buckle, in his *History of Civilization in England.* His theory of man and society is essentially that of the Positivist. He regards all religion as the outgrowth of civilization, instead of its root; and is willing to compliment Christianity with the praise of being the best religious effect of the British mind and character; (provided Christianity can be suggested without its ministers; whose supposed bigotry, ecclesiastical, and theological, never fails to inflame his philosophic bigotry to a red heat,) although he anticipates that English civilization will, under his teachings, ultimately create for itself a religion much finer than that of Christ. He, of course, disdains psychology; he does not believe a man's own consciousness a trustworthy witness; and he regards those general facts concerning human action which are disclosed, for instance, by statistics, the only materials for a science of man

and society. He commends intellectual skepticism, as the most advantageous state of mind. He is an outspoken fatalist, and regards the hope of modifying immutable sequences of events by prayer, as puerile. He regards 'positive' science as a much more hopeful fountain of well-being and progress, than virtue or holiness.

It is significant, also, to hear so distinguished a naturalist as Dr. Hooker, now filling the high position of President of the British Association, in his inaugural address, terming natural theology 'that most dangerous of two-edged weapons,' discarding metaphysics, as 'availing him nothing,' and condemning all who hold it as 'beyond the pale of scientific criticism,' and declaring roundly, that no theological or metaphysical proposition rests on positive proof.

As Americans are always prompt to imitate Europeans, (especially in their follies,) it is scarcely necessary to add, that the same dogmas are rife in our current literature. Even an Agassiz has been seen writing such words as these: 'We trust that the time is not distant, when it will be universally understood, that the battle of the evidences will have to be fought on the field of physical science, and not on that of the metaphysical.'

All these instances are hints of a tendency in English and American philosophy. We have referred to Positivism, as giving us their intelligible *genesis*. Our purpose is, in the remainder of this article, to discuss, not so much individual Englishmen, or their particular theories, as the central principles of that school of thought, from which they all receive their impulse. To debate details and corollaries is little to our taste; and such debate never results in permanent victory. He who prunes the offshoots of error has an endless task; a task which usually results only in surrounding himself with a thicket of thorny rubbish. It is better to strike at the main root of the evil stock, from which this endless outgrowth sprouts. Hence, we propose to examine a few of the general objections against the body of the system, rather than to follow, at this time, the special applications of one or another of the representative men named above.

Let us, then, look back again at Positivism fully pronounced. We have pointed to that gulf of the blackness of darkness, and of freezing despair, towards which it leads the human mind; a gulf without an immortality, without a God, without a faith, without a providence, without a hope. Were it possible or moral for a good man to consider such a thing dispassionately, it would appear to be odd and ludicrous to him, to witness the surprise and anger of the Positivists at perceiving, that reasonable and Christian people are not disposed to submit with entire meekness to all this havoc. There is a great affectation of philosophic calmness and impartiality. They are quite scandalized, to find that the theologians cannot be as cool as themselves, while all our infinite and priceless hopes for both worlds are dissected away under their philosophic scalpel! Such bigotry is very naughty in their eyes. Such conduct sets Christianity in a very sorry light, beside the fearless and placid love of truth, displayed by the apostles of science. This is the tone affected by the Positivists. But we observe, that whenever these philosophic hearts are not covered with a triple shield of supercilious arrogance, they also burn with a scientific bigotry, worthy of a Dominic, or a Philip II. of Spain. They also can vituperate and scold, and actually excel the bad manners of the theologians. The scientific bigots are fiercer than the theological, besides being the aggressors. We would also submit, that if we were about to enter upon an Arctic winter in Labrador, with a cherished and dependent family to protect from that savage clime, and if a philosopher should insist upon it that he should be permitted, in the pure love of science, to extinguish by his experiments, all the lamps from which we were to derive light, warmth, or food, to save us from a frightful death, and if he should call us testy blockheads, because we did not witness those experiments with equanimity, with any number of other hard names; nothing but our compassion for his manifest lunacy should prevent our breaking his head before his enormous folly was consummated. Seriously, the monstrous pretensions of this philosophy are not the proper objects of forbearance. We distinctly avow, that the only sentiment, with which a good and sober man ought to

resist these aggresssions upon fundamental truths, is that of honest indignation. We pretend to affect no other.

The first consideration which exposes the baseless character of Positivism is, that we find it arrayed against the rudimental instincts of man's reason and conscience, as manifested in all ages. That the mind has some innate norms regulative of its own thinking; that all necessary truth is not inaccessible to it; that a universe does imply a Creator, and that nature suggests the supernatural; that man has consciously a personal will, and that there is a personal will above man's, governing him from the skies; these are truths which all ages have accepted, everywhere. Now, we have always deemed it a safe test of pretended truths, to ask if they contravene what all men have everywhere supposed to be the necessary intuitions of the mind. If they do, whether we can analyze the sophisms or not, we set them down as false philosophy. When Bishop Berkeley proved, as he supposed, that the man who breaks his head against a post has yet no valid evidence of the objective reality of the post, when Spinoza reasoned that nothing can be evil in itself, the universal common sense of mankind gave them the lie; there was needed no analysis to satisfy us that they reasoned falsely, and that a more correct statement of the elements they discussed would show it, as it has in fact done. This consideration also relieves all our fears of the ultimate triumph of Positivism. It will require something more omnipotent than these philosophers, to make the human reason deny itself permanently. Thank God, that which they attempt is an impossibility! Man is a religious being. If they had applied that 'positive' method, in which they boast, to make a fair induction from the facts of human nature and history, they would have learned this, at least as certainly as they have learned that the earth and moon attract each other. That there is an ineradicable ground in man's nature, which will, in the main, impel him to recognize the supernatural, is as fairly an established fact of natural history as that man is, corporeally, a bimanous animal. His spiritual instincts cannot but assert themselves, in races, in individuals, in theories, and even in professed materialists and atheists, whenever the hour of their

extremity makes them thoroughly in earnest. No; all that Positivism, or any such scheme, can effect is, to give reprobate and sensual minds a pretext and a quibble for blinding their own understandings and consciences, and sealing their own perdition, while it affords topic of debate and conceit to serious idlers, in their hours of vanity. Man will have the supernatural again; he will have a religion. If you take from him God's miracles, he will turn to man's miracles. 'It is not necessary to go far in time, or wide in space, to see the Supernatural of Superstition raising itself in the place of the Supernatural of Religion, and Credulity hurrying to meet Falsehood half-way.' The later labors of Comte himself give an example of this assertion, which is a satire upon his creed sufficiently biting to avenge the insults that Christianity has suffered from it. After beginning his system with the declaration that its principles necessarily made any religion impossible, he ended it by actually constructing a religion, with a calendar and formal ritual, of which aggregate humanity, as impersonated in his dead mistress, was the deity! 'He changed the glory of the incorruptible God into an image, made like to corruptible man.'

Here also it should be remarked, that it is a glaring misstatement of the history of the human mind, to say that when true scientific progress begins, it regularly causes men to relinquish the theory of the supernatural for that of metaphysics, and then this for Positivism. It was not so of old; it is not so now; it never will be so. It is not generally true either of individuals or races. Bacon, Kepler, Sir Isaac Newton, Leibnitz, Cuvier, were not the less devout believers to the end, because each made splendid additions to the domain of science. The 16th century in Europe was marked by a grand intellectual activity in the right scientific direction. It did not become less Christian in its thought; on the contrary, the most perfect systems of religious belief received an equal impulse. The happy Christian awakening in France, which followed the tragical atheism of the first Revolution, and which Positivism so tends to quench in another bloody chaos, did not signalize a regression of the exact sciences. The history of human opinion and progress presents us with a

chequered scene, in which many causes commingle, working across and with each other their incomplete and confused results. Sometimes there is a partial recession of the truth. The tides of thought ebb and flow, swelling from secret fountains of the deep, which none but Omniscience can fully measure. But amid all the uncertainties, we clearly perceive this general result, that the most devout belief in supernatural verities is, in the main, concurrent with healthy intellectual progress.

2. We have seen that fatalism is a clear corollary of the positive philosophy. It avows its utter disbelief of a personal and intelligent will above us; yea it is glad to assert the impossibility of reconciling so glorious a fact with its principles. It makes an impotent defence of man's own free-agency. But our primitive consciousness demands the full admission of this fact. If there is anything which the mind thinks with a certainty and necessity equal to those which attend its belief in its own existence, it is the conscious fact of its own freedom. It knows that it has a spontaneity, within certain limits; that it does itself originate some effects. No system then, is correct, which has not a place for the full and consistent admission of this primitive fact. But this fact alone is abundant to convince the Positivist that he is mistaken in declaring the supernatural impossible, and in omitting a Divine will and first Cause from his system. Nature, says he, is the all: no knowledge can be outside the knowledge of her facts and laws; no cause, save her forces. These laws, he asserts, are constant and invariable. But, remember, he also teaches, that science knows nothing as effect, save sensible *phenomena*, and nothing as cause, save 'the forces belonging to matter.' Now, the sufficient refutation is in this exceedingly familiar fact; that our own wills are continually originating effects, of which natural forces, as the Positivist defines them, are not the efficients; and that our wills frequently reverse those forces to a certain extent. Let us take a most familiar instance, of the like of which the daily experience of every working-man furnishes him with a hundred. The natural law of liquids requires water to seek its own level: requires this only, and always. But the peasant, by the inter-

vention of his own free will, originates absolutely an opposite effect: he causes it to ascend from its level in the tube of his pump. He adopts the just empirical and 'positive' method of tracing this *phenomenon* to its true cause. He observes that the rise of the water is effected by the movement of a lever; that this lever, however, is not the true cause, for it is moved by his arm; that this arm also is not the true cause, being itself but a lever of flesh and bone; that this arm is moved by nerves; and finally, that these nervous chords are but conductors of an impulse which his consciousness assures him, that he himself emitted by a function of his mental spontaneity. As long as the series of *phenomena* were affections of matter, they did not disclose to him the true cause of the water's rise against its own law. It was only when he traced the chain back to the mind's self-originated act, that he found the true cause. Here then, is an actual, experimental *phenomenon*, which has arisen without, yea, against, natural law. For, according to the Positivist, it discloses only the forces of matter; this cause was above and outside of matter. It was, upon his scheme, (not ours,) literally supernatural. Yet, that it acted, was experimentally certain; certain by the testimony of consciousness. And if her testimony is not experimental, and 'positive,' then no *phenomenon* in physics is so, even though seen by actual eyesight; because it is impossible that sensation can inform the mind, save through this same consciousness. But now, when this peasant is taught thus 'positively,' that his own intelligent will is an original fountain of effects outside of, and above, nature, (the Positivist's nature,) and when he lifts his eyes to the orderly contrivances and wonderful ingenuity displayed in the works of nature, and sees in these the 'experimental' proofs of the presence of another intelligence there, kindred to his own, but immeasurably grander, how can he doubt that this superior mind also has, in its will, another primary source of effects above nature? This is as valid an induction as the physicist ever drew from his maxim, 'Like causes, like effects.' We thus see, that it is not true that the 'positive method' presents any impossibility, or even any difficulty, in the way of admitting the supernatural. On the contrary, it requires the

admission; that is to say, unless we commit the outrage of denying our own conscious spontaneity.

3. The positive philosophy scouts all metaphysical science, namely, psychology, logic, morals, and natural theology, as having no certainty, no Positivism, and as being, therefore, nothing worth. These fictitious sciences, as it deems them, have no *phenomena*, that is, no effects cognizable by the senses, and therefore it deems that they can have no experimental proofs, and can be no sciences. But we assert, that it is simply impossible that any man can construct any other branch of knowledge, without having a science of psychology and logic of his own. In other words, he must have accepted some laws of thought, as sufficiently established, in order to construct his own thoughts. This he may not have done in words, but he must have done it in fact. What can be more obvious, than that the successful use of any implement implies some correct knowledge of its qualities and powers? And this is as true of the mind as of any other implement. When the epicure argues, (in the spirit of Positivism,) 'I may not eat stewed crabs to-day with impunity, because stewed crabs gave me a frightful colic last week,' has he not posited a logical law of the reason? When the mechanic assumes without present experiment, that steel will cut wood, has he not assumed the validity of his own memory concerning past experiments? These familiar instances, seized at hap-hazard, might be multiplied to a hundred. Every man is a psychologist and logician; (unless he is idiotic;) he cannot trust his own mind, except he believes in some powers and properties of his mind. These beliefs constitute his science of practical metaphysics.

We urge farther, that the uniformity of men's convictions concerning *phenomena* and experimental conclusions thereupon, obviously implies a certain uniformity in the doctrines of this common psychology. For, whenever one accepts a given process of 'positive' proof, as valid, this is only because he has accepted that function of the mind as valid, by which he apprehends that proof. Unless he has learned to trust the mental power therein exercised, he cannot trust the conclusion. If, then, physics do not possess the glory (claimed for this science

by the followers of Comte) of 'positivity;' if their evidence are so exact that all men accept them, when understood, with confidence, this is only because they have all accepted with yet fuller confidence, those mental laws by which the physicist thinks. So that the very Positivism of the positive philosophy implies that so much, at least, of metaphysics is equally 'positive.'

The Positivist, of course, has a psychology, although he repudiates it. 'If he had not ploughed with our heifer, he had not found out our riddle.' And this psychology, so far as it is peculiar to him, is that of the *sensualistic* school. The partial inductions, errors, and natural fruits of that school, are well known to all scholars. This is not the first instance, in which it has borne its apples of Sodom, materialism and atheism. Hume, starting from the fatal maxim of Locke, very easily and logically concluded that the human reason has no such intuition as that of a cause for every effect, and no such valid idea as that of power in cause; for in a causative (so called) sequence, is anything else seen by the senses, than a regular and immediate consequent after a given antecedent? Hence he deduced the pleasant consequences of metaphysical scepticism. Hence he deduced that no man could ever believe in a miracle. Hence he inferred, that since world-making is a 'singular effect,' of which no one has had ocular observation, all the wonders of this universe do not entitle us to suppose a first Cause. Hence Hartley and Priestly, in England, deduced the conclusion that the mind is as material as the organs of sense, and perishes with them, of course. Hence the atheism which in France prepared the way for the Reign of Terror, and voted God a nonentity, death an eternal sleep, and a strumpet the Goddess of Reason. We do not wonder that the Positivist, viewing psychology through this school, should have a scurvy opinion of it; indeed, we quite applaud him for it. The fact that he still employs it, notwithstang his ill opinion, only proves how true is the assertion that no man can think without having a psychology of his own.

The relationship of the positive philosophy to these mischievous and exploded vagaries, appears especially in its argu-

ment against the credibility of supernatural effects or powers. Thus, says the Positivist, since our only knowledge is of the *phenomena* and laws of nature, the supernatural is to us inaccessible. Let us now hear Hume: 'It is experience only which gives authority to human testimony, and it is the same experience which assures us of the laws of nature. When, therefore, these two kinds of experience are contrary, we have nothing to do but subtract the one from the other, and embrace an opinion either on the one side or the other, with that assurance which arises from the remainder. But according to the principles here explained, this subtraction, with regard to all popular religions, amounts to an entire annihilation; and, therefore, we may establish it as a maxim, that no human testimony can have such force as to prove a miracle, and make it a just foundation for any such system of religion.'

The only true difference here is, that the recent Positivist is more candid; instead of insinuating the impossibility of the supernatural in the form of the exclusion of testimony, he flatly asserts it. 'The supernatural,' says he, 'is the *antinatural*.' In reply, we would point to the obvious fact, that this view can have force only with an atheist. For, if there is a Creator, if He is a personal, intelligent, and voluntary Being, if He still superintends the world he has made (the denial of either of these postulates is atheism or pantheism,) then, since it must always be possible that He may see a moral motive for an unusual intervention in his own possessions, our experience of our own free will makes it every way probable, that He may, on occasion, intervene. No rational man who directs his own affairs, customarily on regular methods, but occasionally, by unusual expedients, because of an adequate motive, can fail to concede the probability of a similar free-agency to God, if there is a God. This noted demonstration of Positivism is, therefore, a 'vicious circle.' It excludes a God, because it cannot admit the supernatural; and lo! its only ground for not admitting the supernatural is the gratuitous assumption, that there is no God. But, in truth, man's reliance on testimony is not the result of experience; the effect of the latter is not to produce, but to limit, that reliance. The child be-

lieves the testimony of its parent, before it has experimented upon it; believes it by an instinct of its reason. How poor, how shallow, then, is the beggarly arithmetic of this earlier Positivist, Hume, when he proposes to strike a balance between the weight of testimony for the supernatural, and the evidence for the inflexible uniformity of nature! The great moral problems of man's thought are not to be thus dispatched, like a grocer's traffic! The nature of the competing evidence is also profoundly misunderstood. Our belief in the necessary operation of a cause is not based on simple experience, but on an intuition of the reason. The Positivist sees in the natural flora of England and France only exogenous trees. May he, therefore, conclude that nature has no forces to produce endogenous? The testimony of those who visit the tropics would refute him. The truth is, (and none should know it so well as the physicist, since it is taught expressly by the great founder of this inductive logic—Bacon,) a generalization simply experimental can never demonstrate a necessary tie of causation, between a sequence of *phenomena*, however often repeated before us. It can suggest only a probability. We must apply some canon of induction, to distinguish between the apparently immediate antecedent and the true cause, before the reason recognizes the tie of causation as permanent. If, therefore, reason (not empiricism,) suggests from any other source of her teachings, that the acting cause may be superseded by another cause, then she recognizes it as entirely natural to expect a new effect, although she had before witnessed the regular recurrence of the old one a million of times. If, therefore, she learns that there may, even possibly, be a personal God, she admits just as much possibility that His free will may have intervened, as a superior cause.

The truth is, nature implies the supernatural. Nature shows us herself, the marks and proofs that she cannot be eternal and self-existent. She had, therefore, an origin in a creation. But what can be more supernatural than a creation? If it were indeed impossible that there could be a miracle, then this nature herself would be non-existent, whose uniformities give the pretext for this denial of the miraculous.

Nature tells us, that her causes are second causes; they suggest their origin in a first cause. Just as the river suggests its fountains, so do the laws of nature, now flowing in so regular a current, command us to ascend to the Source who instituted them.

4. We carry farther our demonstration of the necessity of practical physics to physical science, by an appeal to more express details. We might point to the service done to the sciences of matter by the *Novum Organum* of Bacon. What physicist is there, who does not love to applaud him, and fondly to contrast the fruitfulness of his inductive method, with the inutility of the old dialectics? But Bacon's treatise is substantially a treatise on this branch of logic. He does not undertake to establish specific laws in physical science, but to fix the principles of reasoning from facts, by which any and every physical law are to be established. In a word, it is metaphysics; the only difference being, that it is true metaphysics, against erroneous. So, nothing is easier to the perspicuous reader than to take any treatise of any Positivist upon physical science, and point to instances upon every page, where he virtually employs some principle of metaphysics. Says the Positivist, concerning some previous solution offered for a class of *phenomena*: 'This is not valid, because it is only hypothesis.' Pray, Mr. Positivist, what is the dividing line between hypothesis and inductive proof? And why is the former, without the latter, invalid? Can you answer without talking metaphysics? Says the Positivist: 'The *post hoc* does not prove the *propter hoc*.' Tell us why? We defy you to do it without talking metaphysics.

The Positivist fails to apply his own maxims of philosophy universally; his observations of the effects in nature are one-sided and fragmentary. He tells us that philosophy must be built on facts; that first we must have faithful and exact observation of particulars, then correct generalizations, and last, conclusive inductions. Right, say we. But the primary fact, which accompanies every observation which he attempts to make, he refuses to observe. When it was reported to the great Leibnitz, that Locke founded his Essay on the maxim,

*Nihil in intellectu quod non prius in sensu*; he answered: *Nisi intellectus isse.* These three words disclose, like the spear of another Ithuriel, the sophism of the whole *sensualistic* system. In attempting to enumerate the affections of the mind, it overlooked the mind itself. At the first fair attempt to repair this omission, Positivism collapses. Does it attempt to resolve all mental states into sensations? Well, the soul cannot have a consciousness of a sensation, without necessarily developing the idea of conscious self, over against that of the sensuous object. 'As soon as the human being says to itself "I," the human being affirms its own existence, and distinguishes itself from that external world, whence it derives impressions of which it is not the author. In this primary fact are revealed the two primary objects of human knowledge; on the one side, the human being itself, the individual person that feels and perceives himself; on the other side, the external world that is felt and perceived; the subject and the object.' That science may not consistently omit or overlook the first of these objects, is proved absolutely by this simple remark, that our self-consciousness presents that object to us, as distinct, in every perception of the outer world which constitutes the other object; presents it even more immediately than the external object, the perception of which it mediates to us. We must first be conscious of *self*, in order to perceive the *not self*. Whatever certainty we have that the latter is a real object of knowledge, we must, therefore, have a certainty even more intimate, that the former is also real. Why, then, shall it be the only real existence, the only substance in nature, to be ostracised from our science? This is preposterous. Is it pleaded, that its affections are not *phenomena*, not cognizable to the bodily senses? How shallow and pitiful is this; when those bodily senses themselves owe all their validity to this inward consciousness!

We now advance another step. Every substance must have its attributes. The ego is a real existence. If our cognitions are regular, then it must be by virtue of some primary principles of cognition, which are subjective to the mind. While we do not employ the antiquated phrase, 'innate ideas,' yet it

is evident that the intelligence has some innate norms, which determine the nature of its ideas and affections, whenever the objective world presents the occasion for their rise. He who denies this must not only hold the absurdity of a regular series of effects without a regulative cause in their subject, but he must also deny totally the spontaneity of the mind. For, what can be plainer than this: that if the mind has no such innate norms, then it is merely passive, operated on from without, but never an agent itself. Now, then, do not these innate norms of intelligence and feeling constitute primitive facts of mind? Are they not proper objects of scientific observation? Is it not manifest that their earnest comprehension will give us the laws of our thinking, and feeling, and volition? Why have we not here a field of experimental science, as legitimate as that material world, which is even less certainly and intimately known?

Dr. Hooker would discard natural theology as entirely delusive. But now we surmise that this science has some general facts which are as certain as any in physics, and certain upon the same experimental grounds. He believes in the uniformity of species in zoology. If one told him of a tribe of one-armed men in some distant country, he would demur. He would tell the relator that experimental observation had established the fact, that members of the same species had by nature the same structure. He would insist upon solving the myth of the one-armed nation, by supposing that the witness was deceived, or was endeavoring to deceive him, or had seen some individuals who were one-armed by casualty, and not by nature. But psychologists profess to have established by an observation precisely like that of the naturalist, this general fact, that all human minds have those moral intuitions, which we call 'conscience.' The utmost that science can require of them is, that they shall see to it, that their observations are faithful to fact, and their generalization of them is correct. When they submit the result to this test, why is not the law of species as valid for them as for Dr. Hooker? Why shall he require us to be any more credulous concerning the natural lack of this moral 'limb,' than he was of the story of the one-armed tribe?

But if conscience is an essential, primitive fact of the human soul, then it compels us to recognize a personal God, and his moral character, by as strict a scientific deduction as any which the physicist can boast. For, obligation inevitably implies an obligator; and the character of this intuitive imperative, which speaks for Him in our reason, must be a disclosure of His character, since it is the constant expression of his moral volition.

5. This instance suggests another capital error of Positivism, in that it proposes to despise abstract ideas, and primitive judgments of the reason; and yet it is as much constrained as any other system of thought, to build everything upon them. Mathematics, the science of quantity, is the basis of the positive philosophy, according to M. Comte; for it is at once the simplest and most exact of the exact sciences. Now when we advert to this science, we perceive at once, that it deals not with visible and tangible magnitudes, and quantities of other classes, but with abstract ones. The point, the line, the surface, the polygon, the curve, of the geometrician, are not those which any human hand ever drew with pen, pencil, or chalk line, or which human eye ever saw. The mathematical point is absolutely without either length, breadth, or thickness; the line absolutely without thickness or breadth; the surface absolutely without thickness! How impotent is it for M. Comte to attempt covering up this crushing fact, by talking of the *phenomena* of mathematics! In his sense of the word *phenomena*, this science has none. The intelligent geometrician knows that, though he may draw the diagram of his polygon or his curve with the point of a diamond, upon the most polished plane of metal which the mechanic arts can give him; yet is it not exactly that absolute polygon or curve of which he is reasoning! How then can he know, that the ideas which he predicates, by the aid of his senses, of this imperfect type, are exactly true of the perfect ideal of figures? He knows that the true answer is this: abstract reasoning assures him that the difference between the imperfect visible diagram, and the ideal absolute figure, is one which does not introduce any element of error, when the argument taken from the diagram is applied to the ideal. But, on the contrary, the reason sees that the more

the imperfection of the diagram is abstracted, the more does the argument approximate exact truth. But we ask, how does the mind thus pass from the *phenomenal* diagram to the conceptual; from the imperfect to the absolute idea? Positivism has no answer. So, the ideas of space, time, ratio, velocity, momentum, substance, upon which the higher *calculus* reasons, are also abstract. Positivism would make all human knowledge consist of the knowledge of *phenomena* and their laws. Well, what is a law of nature? It is not itself a *phenomenon;* it is a general idea which, in order to be general, must be purely abstract. How preposterously short-sighted is that observation, which leaves out the more essential elements of its own avowed process? These instances (to which others might be added) show that the admission of some *à priori* idea is necessary to the construction of even the first process of our *phenomenal* knowledge.

But the most glaring blunder of all is that which the Positivist commits, in denying the prior validity of our axiomatic beliefs, or primitive judgments, and representing them as only empirical conclusions. That psychology and logic of common sense, in which every man believes, and on which every one acts, without troubling himself to give it a technical statement, holds, that to conclude implies a premise to conclude from; and that the validity of the conclusion cannot be above that of this premise. Every man's intuition tells him, that a process of reasoning must have a starting point. The chain which is so fastened as to sustain any weight, or even sustain itself, must have its first point of support at the top. That which depends, must depend on something not dependent. But why multiply words upon this truth, which every rational system of mental science adopts as a part of its alphabet? It can scarcely be more happily expressed than in the words of a countryman of Comte's, M. Royer Collard: 'Did not reasoning rest upon principles anterior to the reason, analysis would be without end, and synthesis without commencement.' These primitive judgments of the reason cannot be conclusions from observation, for the simple ground, that they must be in the mind beforehand, in order that it may be able to make conclusions.

Here is a radical fact which explodes the whole 'positive' philosophy.

Its advocates cannot but see this; and hence they labor with vast contortions, to make it appear that these primitive judgments are, nevertheless, empirical conclusions. Comte's expedient is the following: 'If,' says he, 'on the one side, every positive theory must necessarily be founded upon observation, it is, on the other side, equally plain that to apply itself to the task of observation, our mind has need of some 'theory.' If, in contemplating the *phenomena*, we do not immediately attach them to certain principles, not only would it be impossible for us to combine these isolated observations, so as to draw any fruit therefrom; but we should be entirely incapable of retaining them, and in most cases, the facts would remain before our eyes unnoticed. The need at all times of some 'theory' whereby to associate facts, combined with the evident impossibility of the human mind's forming, at its origin, theories out of observations, is a fact which it is impossible to ignore.' He then proceeds to explain, that the mind, perceiving the necessity of some previous 'theories,' in order to associate its own observations, *invents them*, in the form of theological conceptions. Having begun, by means of these, to observe, generalize, and ascertain positive truths, it ends by adopting the latter, which are solid, and repudiating the former, which its developed intelligence has now taught it to regard as unsubstantial. His idea of the progress of science, then, seems to be this: the mind employs these assumed 'theories' to climb out of the mire to the top of the solid rock, as one employs a ladder; and having gained its firm footing, it kicks them away! But what if it should turn out, that this means of ascent, instead of being only the ladder, is the sole pillar also, of its knowledge? When it is kicked away, down tumbles the whole superstructure, with its architect, in its ruins. And the latter is the truth. For if these 'theories' are prior to our observation, and are also erroneous, then all which proceeded upon their assumed validity is as baseless as they. It is amusing to note the simple effort of Comte to veil this damning chasm in his system, by calling these assumed first truths 'theories.' They are, according to

his conception, manifestly nothing but *hypotheses*. Why did he not call them so? Because then, the glaring solecism would have been announced, of proposing to construct our whole system of demonstrated beliefs upon a basis of mere hypothesis. Nobody could have been deceived. Nor does the subterfuge avail which his follower, Mill, in substance proposes. It is this: that as the sound physicist propounds an hypothesis, which at first is only probable, not to be now accepted as a part of science, but as a temporary help for preparing the materials of an induction; and as this induction not seldom ends by proving that the hypothesis, which was at first only a probable guess, was indeed the happy guess, and does contain the true law; so the whole of our empirical knowledge may be constructed by the parallel process. In other words, the pretension of Mill is, in substance, that all our primitive judgments are at first only the mind's hypothetical guesses; and that it is empirical reasoning constructed upon them afterwards, which converts them into universal truths. Now, the simple and complete answer is this: That this proving or testing process, by which we ascertain whether our hypothesis is a true law, always implies some principle to be the *criterion*. How, we pray, was the test applied to the first hypothesis of the series, when, as yet, there was no ascertained principle to apply, but only hypothesis? *Quid rides?* Mr. Mill's process must ever be precisely as preposterous as the attempt of a man to hang a chain upon nothing! No; the hypothetical ladder is not the foundation of our scientific knowledge. Grant us a foundation, and a solid structure built on that foundation, the ladder of hypothesis may assist us to carry some parts of the building higher; that is all. And the parts which we add, carrying up the materials by means of the ladder, rest at last, not on the ladder, but on the foundation.

The accepted tests of a primitive intuition are three: that it shall be a first truth, i. e., not learned from any other accepted belief of the mind; that it shall be necessary, i. e., immediately seen to be such that it not only is true, but must be true; and that it shall be universal, true of every particular case always and everywhere, and inevitably believed by all sane men, when

its enunciation is once fully understood. The sensualistic school seem all to admit, by the character of their objections, that if the mind have beliefs which do fairly meet these three tests, then they will be proved really intuitive. But they object, these beliefs do not meet the first test, for they are empirically learned by every man, in the course of his own observation, like all inductive truths. And here they advance the plea of their amiable founder, Locke, (who little dreamed, good man, what dragon's teeth he was sowing.) It is this: that the formal announcement of sundry axioms, in words, to unthinking minds, instead of securing their immediate assent, would evoke only a vacant stare. We have to exhibit the application of the axioms in concrete cases, before we gain an intelligent assent. Very true; but why? It is only because the concrete instance is the occasion for his correctly apprehending the abstract meaning of the axiomatic enunciation. Is not the argument preposterous, that because the reason did not immediately see, while as yet the verbal *medium* of intellection was darkness, therefore the object is not an object of direct mental vision? Because a child is not willing to affirm which of 'two pigs in a poke' is the bigger, it shall be declared forsooth, that the child is blind, or that pigs are not visible animals!

Now, against all this idleness of talk, we demonstrate by proof both as empirical and deductive as that of the Positivist for any law in physics, that observation and experience are not, and cannot be, the source of intuitive beliefs. Let us grant just such a case as Locke claims against us. We meet an ignorant, sleepy, heedless servant, and we ask: 'My boy, if two magnitudes be each equal to a third magnitude, must they, therefore, be necessarily equal to each other?' We suppose that he will, indeed, look at us foolishly and vacantly, and, if he says anything, profess ignorance. Our words are not in his vocabulary; the idea is out of his ordinary range of thought. We say to him: 'Well, fetch me three twigs from yonder hedge, and we will explain. Name them No. 1, No. 2, No. 3. Take your pocket knife, and cut No. 1 of equal length to No. 3. Lay No. 1 yonder, on that stone. Now cut No. 2 exactly equal to No. 3. Is it done?' 'Yes, sir.' 'Now, boy,

consider; if you should fetch back No. 1 from the stone yonder, and measure it against No. 2, do you think you would find them equal in length?' If you have succeeded in getting the real attention of his mind, he will be certain to answer with confidence: 'Yes, sir, they will be found equal.' 'Are you certain of it?' 'Yes, sir, sure.' 'Had you not better fetch No. 1 and try them together?' 'No, sir, there is no need; they are obliged to be equal in length.' 'Why are you sure of it, when you have not actually measured them together?' 'Because, sir, did I not cut No. 1 equal to No. 3, and is not No. 2 equal to No. 3? Don't you see that No. 1 and No. 2 cannot differ?' Let the reader notice here, that there has been *no experimental trial* of the equality of the first and second twigs in length; hence it is simply impossible that the servant's confidence can result from experiment. It is the immediate intuition of his reason, because there is, absolutely, no other source for it. Obviously, therefore, the only real use for the three twigs, and the knife, was to illustrate the terms of the proposition to his ignorant apprehension. Let the reader note, also, that now the servant has got the idea, he is just as confident of the truth of the axiom, concerning all possible quantities of which he has conception, as though he had tested it by experiment on all. This suggests the farther argument, that our intuitive beliefs cannot be from experiment, because, as we shall see, we all hold them for universal truths; but each man's experience is limited. The first time a child ever divides an apple, and sees that either part is smaller than the whole, he is as certain that the same thing will be true of all possible magnitudes, as well as apples, as though he had spent ages in dividing apples, acorns, melons, and everything which came to his hand. Now, how can a universal truth flow experimentally from a single case? Were this the source of belief, the greatest multitude of experiments which could be made in a lifetime could never be enough to demonstrate the rule absolutely, for the number of possible cases still untried would still be infinitely greater. Experience of the past by itself does not determine the future.

Moreover, several intuitive beliefs are incapable of being experimentally inferred, because the cases can never be brought under the purview of the senses. 'Divergent straight lines,' we are sure, 'will never enclose any space, though infinitely produced.' Now, who has ever inspected an infinite straight line with his eyes? The escape attempted by Mill, with great labor, is this: One forms a mental diagram of that part of the pair of divergent lines which lies beyond his ocular inspection, (beyond the edge of his paper, or black-board,) and by a mental inspection of this part, he satisfies himself that they still do not meet. And this mental inspection, of the conceptual diagram, saith he, is as properly experimental as though it were made on a material surface. On this queer subterfuge we might remark, that it is more refreshing to us than consistent for them, that Positivists should admit that the abstract ideas of the mind can be subjects of experimental reasoning. We had been told all along that Positivism dealt only with *phenomena*. It is also news to us, that Positivism could admit any power in the mind of conceiving infinite lines! What are these, but those naughty things, absolute ideas, which the intelligence could not possibly have any lawful business with, because they were not given to her by sensation. But, chiefly, Mill's evasion is worthless in presence of this question. How do we know that the straight lines, on the conceptual and infinite part of this imaginary diagram, will have the identical property possessed by the finite visible parts on the black-board? What guides and compels the intelligence to this idea? Not sense, surely; for it is the part of the conceptual diagram, which no eye will ever see. It is just the reason's own *à priori* and intuitive power. Deny this, as Mill does, and the belief (which all know is solid,) becomes baseless.

In a word, this question betrays how inconsistent the sensualistic philosopher is, in attempting to derive first truths from sensational experience, and ignoring the primitive judgments of the reason. How has he learned that sensational experience is itself true? Only by a primitive judgment of the reason! Here, then, is one first belief, which sense cannot have taught us, to wit: that what sense shows us is true. So impossible is

it to construct any system of cognitions, while denying to the reason all primary power of judgment.

When we propose the second test, that intuitive judgments must be 'necessary,' Positivism attempts to embarrass the inquiry by asking what is meant by a necessary truth. One answers (with Whewell, for instance,) it is a truth, the denial of which involves a contradiction. It is, of course, easy for Mill to reply to this heedless definition, that then every truth may claim to be intuition, for is not contradiction of some truth the very character of error? If one should deny that the two angles at the base of an isosceles triangle are equal, he could soon be taught, that his denial contradicted an admitted property of triangles. (And this, indeed, is the usual way we establish deduced truths, which are not intuitive.) We affirm the definition of common sense, that a necessary truth is one, the denial of which is immediately self-contradictory. Not only does the denial clash with other axioms, or other valid deductions, but it contradicts the terms of the case itself, and this, according to the immediate, intuitive view which the mind has. Does not every one know that his mind has such judgments necessary in this sense? When he says, 'the whole *must be* greater than either of its parts,' his mind sees intuitively that the assertion of the contrary destroys that feature of the case itself which is expressed in the word 'parts.' Who does not see, that this axiom is inevitable to the reason, in a different way from the proposition? 'The natives of England are white, those of Guinea, black.' The latter is as true, but obviously, not as necessary, as the former.

Or, if Whewell answers the question, what is meant by a truth's being 'necessary,' that it is one the falsehood of which is 'inconceivable,' Mill attempts to reply, that this is no test of the primariness of a truth, no test of truth at all, because our capacity of conceiving things to be possible, or otherwise, depends notoriously upon our mental habits, associations, and acquirements. He points to the fact that all Cartesians, and even Leibnitz, objected against Sir Isaac Newton's theory of gravitation and orbitual motion, when first propounded, that it was 'inconceivable' how a body propelled by its own *momen-*

*tum* should fail to move on a tangent, unless connected with its centre of motion by some substantial bond. There is a truth in this and similar historical facts. It is that the antecedent probability of the truth of a statement depends, for our minds, very greatly upon our habits of thought. And the practical lesson it should teach us is moderation in dogmatizing, and candor in investigating. But for all this, Mill's evasion will be found a verbal quibble, consisting in a substitution of another meaning for the word 'inconceivable.' We do not call a truth necessary, because, negatively, we lack the capacity to conceive the actual opposite thereof; but because, positively, we are able to see that the opposite proposition involves a self-evident, immediate contradiction. It is not that we cannot conceive how the opposite comes to be true, but that we can see, that it is impossible the opposite should come to be true. And this is wholly another thing. The fact that some truths are necessary in this self-evident light, every fair mind reads in its own consciousness.

As the third test of first truths, that they are universal, the sensualists ring many changes on the assertion, that there is debate what are first truths; that some propositions long held to be such, as: 'No creative act is possible without a pre-existent material;' 'Nature abhors a vacuum;' 'A material body cannot act immediately save where it is present;' are now found to be not axiomatic, and not even true. The answer is, that all this proves, not that the human mind is no instrument for the intuition of truth, but that it is an imperfect one. The same line of objecting would prove with equal fairness, (or unfairness,) that empirical truths have no inferential validity; for the disputes concerning them have been a thousand-fold wider. Man often thinks incautiously; he is partially blinded by prejudice, habit, association, hypothesis, so that he has blundered a few times as to first truths, and is constantly blundering, myriads of times, as to derived truths. What then? Shall we conclude that he has no real intuition of first truths, and by that conclusion compel ourselves to admit (by a proof reinforced a thousand-fold) that he certainly has no means, either intuitive or deductive, for ascertaining derived truths? This is blank

skepticism. It finds its practical refutation in the fact, that amidst all his blindness, man does ascertain many truths, the benefits of which we actually possess. No; the conclusion of common sense is, that we should take care, when we think. But the fact remains, that there are axiomatic truths, which no man disputes or can dispute; which command universal and immediate credence when intelligently inspected; which, we see, must be true in all possible cases which come within their terms. For instance: Every sane human being sees, by the first intelligent look of his mind, that any whole must be greater than one of its own parts; and this is true of all possible wholes in the universe which come within the category of quantity, in any form whatsoever. Is it not just this fact which makes the proposition a general one, that man is a reasoning creature? What, except these common and primitive facts of the intelligence, could make communion of thought, or communication of truth from mind to mind, possible? It is these original, innate, common, primary, regulative laws of belief.

The most audacious and the most mischievous assertion of Mill against absolute truths, is its denial to the mind of any intuitive perception of causation and power. The doctrine of common sense here is, that when we see an effect, we intuitively refer it to a cause, as producing its occurrence. And this cause is necessarily conceived as having power to produce it, under the circumstances. For it is impossible for the reason to think that nothing can evolve something. Nothing can result only in nothing. But the effect did not produce its own occurrence, for this would imply that it acted before it existed. Hence, the reason makes also, this inevitable first inference, that the power of that cause will produce the same effect which we saw, if all the circumstances are the same. But the sensualistic school asserts that the mind is entitled to predicate no tie between cause and effect, save immediate invariable sequence, as observed; because this is all the senses observe, and *Nihil in intellectu quod non prius in sensu.* The inference, that the like cause will in future be followed by the like effect, is, according to them, an empirical result only of repeated observations, to which the mind is led by habit and association.

Now our first remark is, that only a sensualistic philosopher could be guilty of arguing that there can be no real tie of causation, because the senses see only an immediate sequence. The absurdity (and the intended drift also) of such arguing appears thus: that by the same notable sophism, there is no soul, no God, no abstract truth, no substance, even in matter, but only a bundle of properties. For did our senses ever see any of these? How often must one repeat the obvious fact, that if there is such a thing as mind, it also has its own properties; it also is capable of being a cause; it also can produce ideas according to the law of its nature, when sense furnishes the occasion? Sensation informs us of the presence of the effect; the reason, according to its own imperative law, supposes power in the cause.

It is extremely easy to demonstrate, and that by the Positivist's own method, that mental association is not the ground, but the consequence, of this idea of causation. We all see certain 'immediate, invariable sequences' recurring before us with perfect uniformity; yet we never dream of supposing a causative tie. We see other sequences twice or thrice, and we are certain the tie of power is there. Light has followed darkness, just as regularly as light has followed the approach of the sun. Nobody dreams that darkness causes light; everybody believes that the sun does cause it. It thus appears experimentally, that association has not taught us the notion of cause; but that our knowledge of cause corrects our associations and controls their formation.

The experience of a certain *phenomenon* following another a number of times can never, by itself, produce a certainty that under similar circumstances it will always follow. The mere empirical induction gives only probability. The experience of the past, were there no intuition of this law of causation by which to interpret it, would only demonstrate the past; there would be no logical tie entitling us to project it on the future. We ask our opponents, if it be the experience of numerous instances which give us certainty of a future recurrence, how many instances will effect the demonstration? Is their answer, for instance, that one hundred uniform instances, and no fewer,

would be sufficient? What then is the difference between the ninety-ninth and the hundredth? According to the very supposition, the two instances are exactly alike; if they were not, the unlike one could certainly contribute nothing to the proof, for it would be excluded as exceptional. Why is it, then, that all the ninety-nine do not prove the law; but the hundredth instance, exactly similar to all the rest, does? There is no answer. The truth is, the reason why an empirical induction suggests the probability that a certain, oft-repeated sequence contains the true law of a cause, (which is all it can do,) is but this: Intuition has assured us in advance, that the second *phenomenon* of the pair, the effect, must have some cause, and the fact observed, that the other is its seeming next antecedent may be as yet undetected. We, therefore, resort to some test grounded on the intuitive law of cause, to settle this doubt. Just so soon as that doubt is solved, if it be by the second observation, the mind is satisfied; it has ascertained the causative antecedent; it is now assured that this antecedent, if arising under the same conditions, will inevitably produce this consequent, always and everywhere; and ten thousands of uniform instances, if they do not afford this test, generate no such certainty. Yea, there are cases in which the conviction of causative connection is fully established by one trial, when the circumstances of that one trial are such as to assure the mind that no other undetected antecedent can have intervened, or accompanied the observed one. For instance, a traveller plucks and tastes a fruit of inviting color and odor, which was wholly unknown to him before. The result is a painful excoriation of his lips and palate. He remembers that he had not before taken into his mouth any substance whatever, save such as he knew to be innocuous. The singleness of the new antecedent enables him to decide that it must have been the true cause of his sufferings. That man thenceforward knows just as certainly, that this fruit is noxious, whenever he sees it, to the millionth instance, without ever tasting it a second time, as though he had tasted and suffered nine hundred thousand times.

Indeed, as Dr. Chalmers has well shown, experience is so far from begetting this belief in the law of cause, that its usual effect is to correct and limit it. A child strikes its spoon or knife upon the table for the first time; the result is sound, in which children so much delight. He next repeats his experiment confidently upon the sofa-cushion or carpet; and is vexed at his failure to produce sound. Experience does not generate, but corrects, his intuitive confidence, that the same cause will produce the same effect; not by refuting the principle, but by instructing him that the causative antecedent of the sound was not, as he supposed, simple impact, but a more complex one, namely, impact of the spoon, and elasticity of the thing struck.

Mill himself admits expressly, what Bacon had so clearly shown, that an induction merely empirical, gives no demonstration of causative tie. To reach the latter, we must apply some canon of induction, which will discriminate between the *post hoc*, and the *propter hoc*. Does not Mill himself propose such canons? It is obvious that the logic of common life, by which plain people convert the inferences of experience into available certainties, is but the application of the same canons. Let us now inspect an instance of such application, and we shall find that it proceeds at every step on the intuitive law of cause as its postulate. Each part of the reasoning which distinguishes between the seeming antecedent, and the true cause, is a virtual syllogism, of which the intuitive truth is major premise. Let us select a very simple case; the reader will see, if he troubles himself to examine the other canons of induction, that they admit of precisely the same analysis. We are searching for the true cause of an effect which we name D. We cannot march directly to it, as the traveller did in the case of the poisonous strange fruit; because we cannot procure the occurrence of the *phenomenon* D, with only a single antecedent. We must therefore reason by means of a canon of induction. First we construct an experiment in which we contrive the certain exclusion of all antecedent *phenomena* save two, which we name A and B. It still remains doubtful which of these produced the effect D, or whether both combined to do it. We contrive a second experiment, in which B is excluded, but

another *phenomenon*, which we call C, accompanies A, and the effect D again follows. Now we can get the truth. Here are two instances. In the first, A and B occurred, and D follows immediately; all other antecedents being excluded. Therefore the cause of D is either A or B, or the two combined, (thus the inductive canon proceeds.) But why? Because the effect D *must* have had its immediate cause, which is our *à priori* and intuitive postulate. In the second instance, A and C occurred together, and D followed. Here again, the true cause must be either A or C, or the combined power of the two. Why? For same intuitive reason. But in the first instance C could not have been the cause of D, because C was absent then; and in the second instance, B could not have been cause, for B was then absent. Therefore A was the true cause all the time. Why? Because we know intuitively that every effect has its own cause. And now we know, without farther experiment, that however often A may occur under proper conditions, D will assuredly follow. Why? Only because we knew, from the first, the general law, that like causes produce like effects.

It thus appears, that the intuitive belief in this law of cause, is essential beforehand, to enable us to convert an experimental induction into a demonstrated general truth. Can any demonstration be clearer, that the original law itself cannot have been the teaching of experience? It passes human wit to see how a logical process can prove its own premise, when the premise is what proves the process. Yet this absurdity Mill gravely attempts to explain. His solution is, that the law of cause is 'an empirical law coextensive with all human experience.' In this case he thinks an empirical law may be held as perfectly demonstrated, because of its universality. May we conclude, then, that a man is entitled to hold the law of cause as perfectly valid, only after he has acquired 'all human experience?' This simple question dissolves the sophism into thin air. It is experimentally proved, that this is not the way in which the mind comes by the belief of the law; because no man ever acquires all human experience, to the day of his death; but only a part, which, relatively to the whole, is exceedingly minute; and because every man believes the general law of

cause as soon as he begins to acquire experience. The just doctrine therefore is, that experimental instances are only the occasions upon which the mind's own intuitive power pronounces the self-evident law.

John Stuart Mill is both a Positivist in his logic, and the accepted philosophor of English Radicalism. The reader has in the above specimens, a fair taste of his quality. With much learning and labor, he combines subtlety and dogmatism. His style, like his thoughts, is intricate, ill-defined, and ambiguous, having a great air of profundity and accuracy, without the real possession of either. When one sees the confused and mazy involutions in which he entangles the plainest propositions that are unfriendly to his sensualistic principles, he is almost ready to suppose him the honest victim of those erroneous postulates, until he observes the astute and perspicacious adroitness with which he wrests the evidences of the truth which he dislikes.

But we return, and conclude this branch of the discussion by resuming the points. Positivism denies all primary and absolute beliefs. We have now shown that in this it is inconsistent; because such beliefs are necessary premises to those experimental processes of proof, which alone it affects to value. It is by these primitive truths of the reason, that the soul reaches a realm of thought above the perception of the senses, and ascends to God, to immortality, to heaven.

6. Comte and his followers claim that the physical sciences have the most fruit, and the most satisfying certainty, because they have received the 'positive' method. Metaphysics, including psychology, ethics, and natural theology, had remained to his day, worthless, and barren of all but endless differences and debates, because they had attempted a different method, and refused Positivism. But he undertook to reconstruct so much of these as he did not doom to annihilation, upon the strict basis of the observation of the bodily senses, and experimental reasoning, under the name of 'sociology.' In this instance, with the help of biology, he proposed to deduce all the laws of mind from physical experiments and observations upon its organs, the brain, and nervous apparatus; and from the visible acts of men's bodies as moved by the mind. Then, from the laws of

mind, with the facts of human history, he professed to construct an experimental and positive science of ethics and government. It is instructive to notice that the Positivists, just so soon as they approach these sciences of mind, morals, human rights, and government, disagree with each other as much as the rest of us unpositive mortals. The Priest of Humanity has been compelled to expel many of his earliest admirers from his Church. Somehow, Positivism itself, when it approaches these topics, is no longer 'positive;' it guesses, dogmatizes, dreams, disputes, errs, fully as much as its predecessors. What, now, does this show? Plainly that the experimental methods of the physical sciences are incapable of an exact and universal application, in this field of inquiry. The objects are too immaterial; they are no longer defined, as in physics, by magnitude, or figure, or quantity, or duration, or ponderosity, or velocity. The combinations of causation are too complex. The effects are too rapid and fleeting. The premises are too numerous and undefined, for our limited minds to grasp with uniform exactness and certainty. If Positivism, with all its acknowledged learning, and mastery of the sciences of matter, with its boasts and its confidence, has failed to conquer these difficulties in the little way it professes to advance in the science of the human spirit, shall we not continue to fail in part? 'What can he do that cometh after the king?'

Let us couple this fact, that the sciences of psychology, morals, and natural theology have ever been, and are destined to remain, the least exact and positive of all the departments of man's knowledge, with this other, that they are immeasurably the most important to his well-being and his hopes. The latter statement commends itself to our experience. It is far more essential to a man's happiness here, that he shall have his rights justly and fairly defined, than his land accurately surveyed. It is far more interesting to the traveller to know whether the ship-captain to whom he entrusts his life has the moral virtue of fidelity, than the learning of the astronomer and navigator. It is more important to us to have virtuous friends to cherish our hearts, than adroit mechanics to make our shoes. It is more momentous to a dying man to

know whether there is an immortality, and how it may be made happy, than to have a skilful physician, now that his skill is vain. We see here, then, that human science is least able to help us where our need is most urgent. M. Comte reprehends the human mind, because 'questions the most radically inaccessible to our capacities, the intimate nature of being, the origin, and the end of all *phenomena*, were precisely those which the intelligence propounded to itself, as of paramount importance, in that primitive condition; all the other problems, really admitting of solution, being almost regarded as unworthy of serious meditation. The reason of this it is not difficult to discover, for experience alone could give us the measure of our strength.' Alas! the reason is far more profound. Man has ever refused to content himself with examining the properties of triangles, prisms, levers, and pulleys, which he could have exactly determined, and has persisted in asking whence his spiritual being came, and whither it was going, what was its proper rational end, and what its laws; not merely because he had not learned the limits of his power, but because he was, and is, irresistibly impelled to these inquiries by the instinctive wants of his soul. His intuitions tell him that these are the things, and not the others, which are of infinite moment to him. It appears, then, that it is unavoidable for man to search most anxiously where he can find least certainty. His intellectual wants are most tremendous, just in those departments where his power of self-help is least. To what should this great fact point us? If we obey the spirit of true science, it will manifest to us the great truth, that man was never designed by God for mental independence of Him; that man needs, in these transcendent questions, the guidance of the infinite understanding; that while a 'positive philosophy' may measure and compare his material possessions, the only 'exact science' of the spirit is that revealed to us by the Father of Spirits. This, we assure the Positivist, is the inevitable conclusion to which the sound and healthy reason will ever revert, as the needle to its pole, despite all his dogmatism and sophistry. If there were nothing else to ensure it, the intolerable miseries, crimes, and despair, into which Positivism

will ever plunge the societies which adopt it, will always bring back this result. He may draw an augury of the destiny of his wretched creed from the parsimony of its present followers. M. Comte drew up a scheme for the support of the ministers of his new 'Worship of Humanity,' under which the 'High Priest of Humanity' was to receive a salary of about $12,000 a year, and four national superintendents about $6,000 each. It appears from the newspapers, that only forty-six persons contributed in 1867, and the total was $750. But meantime the votaries of that Lord Jesus Christ whom he despises, in the conquered South, though 'scattered and peeled' by their enemies, contribute annually some millions of dollars, and are sending their best intellects and hearts to propagate their faith at the antipodes. Let the Positivist judge which system has the conquering vitality!

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ART. VI.—1. *Memoirs of Service Afloat, during the War between the States.* By Admiral Raphael Semmes. Baltimore: Kelly, Piet & Co. 1868. Pp. 833.

2. *A Lecture delivered by Silas Bent, Esq., before the Missouri Historical Society of St. Louis.* The subject: 'Thermometive Gateways to the Poles.'

When we look abroad upon the face of our beautiful country, and behold it teeming with an abundant and varied flora; the mountains and hill-sides clothed with forests centuries old; our fields rich with abundant harvests, at the proper seasons of the year, and our lawns adorned with a beautiful and variegated shrubbery, and reflect that all this store of wealth and beauty are the results of certain atmospheric phenomena, our curiosity is awakened, and we desire to inquire into the agencies which produce such phenomena. In the beginning of our inquiries

we are exceedingly baffled, for all seems a mere chance-medley, a mere confusion of the elements. When we see the wind blowing hither and thither, changing its direction without apparent cause, now bringing us the stifling air of the desert, and now the refreshing breeze of the mountain; when we look upon the summer shower refreshing the landscape, amid the crashing of the thunder, and the play of the lightning, yet giving renewed vigor to the growing crops; when again the eye wanders over a heated and parched plain, where no rain has fallen for weeks, and where the corn rolls up its leaf, instinctively, that it may present as little surface as possible to the scorching, and blistering sun; and finally when we look forth upon the howling blasts of winter, under which the stout tree-tops are bending, while the angry clouds are discharging upon them their sleet, rain, and snow, all seems to be involved in mystery. Indeed these wonders of nature have been a mystery from the infancy of nations to a comparatively recent period. A century ago, we knew scarcely more about the winds, and the weather, than did the shepherds who watched their flocks on the hills of Galilee, before the coming of the Saviour. Like chemistry, meteorology has received its chief development during our own day and generation. And seamen have been the philosophers, who, more than any other class, have contributed to its development. As commerce has increased, and ships have multiplied upon the ocean, the meteorological secrets of nature have been unlocked. The philosophers of ancient times, whose ships crept cautiously, and timidly, from shore to shore, speculated upon meteorological phenomena in vain. Nothing entitled to bear the name of science in this department of inquiry, but only vague and crude conjectures instead, have been handed down to us, by the ancients. It is true, that no subject escaped the attention of the Greek philosophers, and Aristotle, as far back as three centuries before Christ, wrote a work on meteorology, but there is nothing in it worthy of notice. The great master of metaphysics, he who stands to-day, after the lapse of more than two thousand years, as the head of the schools of the moral sciences, was unable to penetrate even the more simple secrets of nature with reference to

that great meteorological repository, the atmosphere. He was unable to analyze the breath he drew, or tell whence it came, or whither it departed. Here is the definition of a cloud by one of the philosophers who followed close on the footsteps of Aristotle, and who, it may be supposed, availed himself of all the meteorological knowledge of his day. 'Clouds,' says Epicurus, 'may have many causes; they may be condensations of the air, compressions of the winds, conglomerations of atoms of a special kind, or emanations from the earth, and the waters.' But these, as the reader sees, were mere conjectures, and they were reasoned upon in the most fanciful manner. In that day, philosophy preceded facts, instead of facts preceding philosophy, and the consequence was that almost all the natural or physical philosophy of the ancients was, as we have said, little more than a mass of conjectures. Many curious inventions were made by the ancient philosophers without their being able to explain them. For instance, about a century before Christ, Ctesiphus, and Horo, his disciple, invented the pump; but they were unable to explain why the water rose in the tube of the pump, on the drawing up of the piston, except on the principle that nature abhors a vacuum. This was, of course, philosophical enough as far as it went, but they had no idea how it was that nature filled the vacuum; although they had some vague notions of the ponderability of the atmosphere, as well as of its elasticity; for Aristotle tells us, that a bladder when filled with air will weigh more than when it is empty. The piston when drawn up through the tube of the pump, according to these philosophers, produced a vacuum, and as nature abhors a vacuum, the water rushed up after the piston to fill it, but they had no conception that it was the weight of the atmosphere that caused the water to rise; nor do we learn anywhere from their writings, that they knew the limit to which the elevation of the water was confined, to wit, about thirty-three or thirty-four feet, or a foot for every mile in depth of the atmosphere. Indeed Galileo, who is justly regarded as the father of modern physics, could only explain it, when applied to, by saying that nature abhors a vacuum, to the extent of thirty-three, or thirty four feet! Rome,

in her palmiest days, when she was mistress of the entire world, was ignorant of the simple principle, that water, when confined in a tube, will rise to the level of its fountain head or source, as is evidenced by the remains of those gigantic aqueducts that once spanned the valley of the Eternal City. While great advances had been made by the ancients in the exact science of mathematics and its cognates, and nearly the entire field of metaphysics had been explored, with an acumen, and fertility of conception, that continue to astonish us to the present day, they were but children picking up pebbles on the mystic shore of meteorology. They transferred from the metaphysical world, in which they were so fond of speculating, to the physical world, the ideas of affection and hatred; both celestial and terrestrial bodies having, according to their notions, their sympathies and antipathies. Nature filled a vacuum simply because she abhorred it, and every star had its baleful or benign influence. They thought they had sufficiently explained a phenomenon, when, after one fashion or another, they had brought it under the influence of one of these occult agencies. In our day, instead of betaking ourselves to the secret, and gloomy cave of Egeria, or to the dark recesses of the forest, and there questioning these supposed occult powers, we have gone abroad upon the land, and more particularly upon the sea, and interrogated nature. By long and patient observation, we have noted her facts, one by one, and when she has seen us in possession of these, she has reluctantly yielded to us the possession of her secrets. There is no employment more ennobling to man and his intellect, or one which yields him more pure and unalloyed enjoyment, than that of tracing the evidences of design, and adaptation in the visible creation, by which he is surrounded; and to no one is this field so inviting as to the seaman, at least so far as the science of meteorology is concerned. When he finds himself upon the high seas, with nothing for the eye to rest upon, but an illimitable waste of waters, now sleeping with the gentleness of an infant, now raging with the fury of a giant, he is awed and subdued, and brought, as it were, face to face, with his Creator. The relations of earth, sea, and air force them-

selves upon him, whether he will or not, and he becomes a philosopher from necessity. When he finds himself beyond the influence of the land upon the winds, he sees at once that he is in a field peculiarly favorable for studying the general laws of the atmospheric circulation. Here, there are no unduly heated surfaces, no mountain ranges, or other obstructions to the circulation of the atmosphere—nothing, in short, to disturb it in its natural courses. The sea, therefore, is the field for observing the operation of the general laws which govern the movements of the great ærial ocean. Observations on land enable us to discover the exceptions, but from the sea we get the rule. Every valley, every mountain range, and every local district, with its peculiar formation, may be said to have its own system of calms, winds, rains, and droughts. But not so the surface of the broad ocean. Over the sea the agencies which are at work are of a uniform character, and they produce uniform results. As was naturally to have been expected, the greater part of our meteorological information of the present day has come to us from the sea, and seafaring men. All the maritime nations have contributed to the common fund, but foremost among them have been England, Holland, and the United States. From the days of Cook, England has had a valuable corps of explorers, and surveyors, constantly at work. While these old navigators have been hunting for the North-West Passage, and endeavoring to make their way to the poles, they have been as watchful of the heavens above as of the sea below. The names of Cook, Parry, Ross, Beechey, Franklin, Fitzroy, and a host of other gallant spirits of the British navy call up vivid recollections in connection with our science. Holland has contributed a host in Lieutenant Jansen alone. In the United States we have had a number of able, and energetic workers upon the sea, foremost among whom stands Captain Maury, renowned for his *Wind and Current Charts*, and for his *Physical Geography of the Sea*. Among the later contributions to the science are the work of Admiral Semmes, entitled *Memoirs of Service Afloat, during the War between the States*, and a Lecture delivered by Silas Bent, Esq., before the Missouri Geographical Society at St. Louis. Mr. Bent was, in

former years, a seaman, having been a Lieutenant in the U. S. Navy. He accompanied the expedition of Commodore Perry to Japan, and made some valuable observations upon the currents of the China seas. We purpose, in the present article, to make some observations upon the problems discussed by the last two gentlemen above named. Although we have hitherto only spoken of the science of meteorology, we shall not confine our views strictly to this science, but will extend them to some of the more interesting of the oceanic currents. Indeed the latter are so intimately connected with the science which treats of the atmosphere, that it is difficult to separate them. The only difference between the ocean of water, and the ocean of air, is, that the one is a more attenuated fluid than the other. They are both fluids, in a philosophical sense, and subject to the laws of fluids. Perhaps the most beautiful problem connected with the atmosphere is that which treats of its agency in the distribution of rain over the earth. When the seaman has launched his bark upon the great ocean of water, he perceives, at the same time, that he has entered another ocean, which is shoreless, and at the bottom of which he is creeping along on the surface of the earth. This atmospheric ocean is a great reservoir into which the supply of food, designed for living creatures, is cast; or, rather is, itself, the food for these creatures, reduced to its simplest form. The animal grinds down the fibre, and the tissue of the plant, or the nutritious store that has been laid up in its cases, and converts them into the substance of which its organs are composed. The organs and nutritious store which it thus yields up as food to the animal, the plant acquires, namely, from the bountiful atmosphere in which it lives. The atmosphere is also a sewer, into which, with every breath we draw, we cast a quantity of dead animal matter. It is, besides, a laboratory for purification, in which that matter is recompounded, and brought again into healthful, and life-giving conditions. These remarks are commonplace enough, but they are introduced, as the lawyers say, in pleading, as *inducement* to what follows. We have said that the animals and plants are alike fed by the atmosphere, but the difference between the animal and the

plant is, that the former is endowed with locomotion, and can approach, seize, and appropriate its food, while the latter is stationary, and must wait for its food to be brought to it. The atmosphere must, therefore, be the food-carrier for the plant. It must come and go. Plants, like animals, breathe and appropriate certain constituent portions of the atmosphere, and the circumjacent air would soon become unfit for the further use of the plant, if it were not changed. The plant having consumed all the food within its reach, would die of inanition if more were not brought; and so, the atmosphere, after having enveloped the plant, and fed the stalk and leaves by absorption, and deposited its moisture at its root, hurries off for a fresh supply. The atmosphere in motion is wind, and we see, here, one of the reasons why, in the economy of nature, the winds have been ordered to blow. In short, the atmosphere is a great machine for pumping up all the rivers from the sea, and for watering all the corn-fields. It may be likened, in many of its processes, to a steam-engine, and a little thought will suffice to show us, how herculean its labors are. The mean annual fall of rain on the entire surface of the earth is estimated at five feet. To evaporate water enough annually for the ocean to cover the earth, on an average, with five feet of rain; to transport it from one zone to another, and to precipitate it in the right places, at suitable times, and in proper proportions, is one of the offices of the grand atmospherical machine. This water is evaporated principally from the Torrid Zone. Supposing it all to come from thence, we shall have encircling the earth a belt of ocean three thousand miles in breadth, from which this atmosphere evaporates a layer of water, annually, sixteen feet in depth. Now, imagine a lake, three thousand miles broad, and twenty-four thousand miles long, with the water sixteen feet deep, and then imagine a steam-engine capable of emptying this immense lake; and not only capable of emptying it, but of lifting up its waters as high as the clouds, and distributing them all over the earth, and you will have some idea of the yearly business performed by this invisible machinery of the atmosphere. What a powerful machine it must be, in what a wonderful workshop it

must have been constructed, and how skilful must be the Engineer who contrived it! How nicely adjusted must be the size of the boiler, and the quantity of heat applied to it, how strong its cylinder, crank, and shaft, and how numerous the pumps and buckets moving the water to and from the clouds; and how nicely must all the parts of this exquisite and intricate machine be adapted, one to the other, and how smoothly all the joints and sockets must work that it never wears out, nor breaks down, nor fails to do its work, at the right time, and in the right way! This great machine has many servants attending upon it. It not only has to pump up the water as high as the clouds, but it has to send them, as we have said, all over the earth, and then let them down again, not all at once as roaring cataracts destroying everything in their path, but as gentle, life-giving rain, and dew. One of its chief agents is the sun. It is his business to attend to the pumps and buckets. Day and night, night and day, as the earth presents now one part of her surface to him, and now another, he is pumping away, and sending down into the sea his myriad of empty buckets, and hauling them up full again. At his right hand, and at his left, stand the ready and obedient winds, which receive from him his full buckets, and start off with them to the uttermost ends of the earth. We propose to follow these winds for awhile, and to show the reader by what paths they come and go; where it is that the sun loads them with his buckets of water, whither they carry it, and how they dispose of it; why it is that they pour down so much here, and so little there, and why it is that in some places they pour down none at all. We will not stop to inquire what it is that puts the winds in motion, or rather, how it is that they are put in motion, for we have already seen them obeying the orders of the sun. This inquiry alone would occupy the remaining space of our article. It will, however, be sufficient for our present purpose to follow them in their circuits, to show where they 'turn and whirl about,' and what they are doing with the water buckets, the while. There are two, well-developed systems of wind between the tropics—one blowing from the northeast, in the Northern Hemisphere, and the other from

the southeast, in the Southern Hemisphere. These two winds meet each other at or near the equator. The consequence of this meeting is, that they first neutralize each other, producing a belt of equatorial calms, and then must either pass each other, and continue their respective courses, or turn back and go to the point whence they came. We purpose to show that they do not turn back, but cross each other, and proceed from the place of crossing to the poles. This would seem, at first sight, a very difficult problem to solve, for how are we to identify the two winds, so as to be able to say, which is which? If we could seize a particle of the wind, convert it into a carrier-pigeon, and put a tally upon it, so that we might know it from the other carrier-pigeons which it meets on its route, our task would be simple enough. Strange as it may appear, nature has, in fact, done this, to our hand, as the reader will presently see. But before we proceed to show how this has been done, let us see what *à priori* arguments there are to show, first, why the winds should proceed from the equator to the poles at all; and, secondly, why they should cross each other, and each proceed to the pole of the other, instead of turning back, and going to its own pole. A very little reflection will serve to show us why it is absolutely necessary that the winds, which blow from the poles to the equator, should blow back again from the equator to the poles. The northeast and southeast trade winds blowing constantly toward the equator, if there were no outlet for them, would soon draw away from the poles, and pile up at the equator, all the atmosphere of the earth. But the atmosphere being a fluid, and obeying the laws of fluids with regard to density, level, and so forth, this cannot be. But as there is a constant surface-current of air *toward* the equator, within the tropics, how can the air *from* the equator get back to the poles? Manifestly there is but one mode. It must be by means of an upper current. The two trade winds, spoken of, as fast as they meet in the calm belt of the equator, ascend, and either mix and mingle, and, losing their identity, blow back indiscriminately to the poles, or refusing to mix and mingle, preserve their identity, and proceed separately to the poles. It being true, then, that the winds

are under a philosophical necessity of proceeding from the equator to the poles, let us see why it is, that they shall preserve their identity, and each proceed to the pole of the other, instead of turning back, and going again to its own pole. There is a certain quantity of rain-work, if we may so express ourselves, required to be performed, annually, in the two hemispheres, by these winds. If it be true that the rain-work of the Northern Hemisphere could not possibly be performed by the winds of that hemisphere; and, on the other hand, that the rain-work of the Southern Hemisphere could not be performed by the winds of that hemisphere, we establish the necessity for the crossing of these winds at the equator, that each may do the work of the other—the northern wind doing the work of the Southern Hemisphere, and the southern wind, the work of the Northern Hemisphere. That it is true, that neither wind can adequately perform the work of its own hemisphere, will be obvious upon the statement of a few geographical facts. If we examine a globe, we shall find, that in the Northern Hemisphere there is one-third more land than water; while in the Southern Hemisphere there is one-third more water than land. The sun, therefore, with those pumps and buckets of his, which we have been describing, takes up one-third less water in the Northern Hemisphere, than he does in the Southern; the quantity taken up in each hemisphere being in proportion to the extent of evaporating surface. There being more land in the Northern Hemisphere, than in the Southern, there is more rain required in the former than in the latter. This being the case, if that great luminary, the sun, which we have supposed to be so busily at work within the tropics, should command his water-carriers, the north winds, to return to the north, and there pour down their buckets full of water, we should not have rain enough in this hemisphere. On the other hand, if he were to dispatch the south winds, southward, with directions to discharge their waters upon the lands of the Southern Hemisphere, the inhabitants of that hemisphere would be drowned out! This is the *à priori* argument, which results as a necessity, from the unequal distribution of land and water in the two hemispheres. What is the

fact? What story do the rain-gauges in the two hemispheres tell? They tell the story which our theory demands. More water does, in fact, fall upon the Northern Hemisphere, than upon the Southern. Having thus established the necessity for the crossing of the trade-winds at the equator, and proved the fact of their crossing, by that mute but truthful witness, the rain-gauge, let us pursue our inquiries, and see how it is, that nature has tallied the wind, as though it were a carrier-pigeon, causing it to reveal the truth of our proposition, in a still more startling manner. There has been long known to mariners what is called the service-dust, or African-dust, or rain dust; an impalpable powder which has been found on the deck and rigging of ships far out at sea. Admiral Semmes speaks of having seen large quantities of this dust, when cruising in the Sumter. Some of this rain-dust has also fallen periodically at the Cape de Verd Islands, Malta, Genoa, Lyons, and even in the Tyrol. Ehrenberg, a German philosopher, having had his attention called to this dust, subjected some specimens of it, found at the different places above mentioned, to the microscope, and has established, beyond a doubt, that the infusoria, and remains of minute organisms of which it is composed, have their original *habitat* in South America, and not in any of the places in which they were collected. Although this philosopher examined a great many specimens, he found them all to be as homogeneous as if they had been taken from the same pile! And we have pretty conclusive evidence that these impalpable remains of minute organisms come from the valley of the Amazon, in the northern part of Brazil. Humboldt, more than half a century ago, and not dreaming of the results to which his researches would lead, supplied us with the remaining link in our chain of investigation, in his description of the Amazon during the dry season. 'When,' says he, 'under the vertical rays of the never-clouded sun, the carbonized, turfy covering of the soil falls into dust, the indurated soil cracks asunder as from the shock of an earthquake. If, at such times, two opposing currents of air, whose conflict produces a rotary motion, come in contact with the soil, the plain assumes a strange and singular aspect. Like conical shaped clouds, the

points of which descend to the earth, the sand rises through the rarefied air on the electrically charged centre of the whirling current, whose roar resembles that of the loud water-spout dreaded by the experienced mariner. The lowering sky sheds a dim, almost a straw-colored light on the desolate plain. The pools, which the yellow, fading branches of the fan-palm had protected from evaporation, now gradually disappear. As in the icy North the animals become torpid with cold, so here, under the influence of the parching drought, the crocodile and the boa become motionless, and fall asleep deeply buried in the dry mud. Half concealed by the dense clouds of dust, restless with the pain of thirst and hunger, the horses and cattle roam around; the cattle lowing dismally, and the horses stretching out their long necks, and snuffing the wind, if, haply, a moister current may betray the neighborhood of a not wholly dried-up pool.' Humboldt, like Ehrenberg, examined, under his microscope, some specimens of the dust thus described by him, as giving a straw-colored tint to the atmosphere, and, judging from the descriptions given by the two philosophers, the dust of the Cape de Verds, and the dust of the valley of the Amazon, appear to be identical. There is, however, a seeming discrepancy in a portion of their testimony, which we shall have to call in a third witness to reconcile. Humboldt describes the floating specimens seen, and examined by him, as being of a straw color, while Ehrenberg tells us that the little piles examined by him were of a pale brick-dust red. The witness who is to reconcile this discrepancy is our own philosopher, Maury. 'In the search,' says the philosopher, 'for spider lines for the diaphrams of my telescopes, I procured the finest, and best threads from a cocoon of a mud-red color; but the threads of this cocoon, as seen singly through the diaphram, were of a gold color.' It is quite likely, therefore, that the moats which when seen singly, in the atmosphere, by Humboldt, appeared of a straw or golden color, should, when brought together in a pile, under Ehrenberg's microscope, have assumed a brick-red, or mud-red color. It only remains for us to show, how the rain-dust of the Amazon finds its way to the Cape de Verd Islands, the track of the Sumter,—Malta, Genoa, Lyons, and

the Tyrol,—and when we shall have seen this, we shall have proved our proposition, that the wind has been tallied, and identified by means of the tally. If the reader will take a map, and run his eye along it from the mouth of the Amazon to the Cape de Verd Islands, and the other places named, he will find that they lie nearly in a straight line, and that that line is a diagonal of about northeast and southwest. The region between the Cape de Verds, and the Amazon, is within the tropics, where the northeast trade-wind prevails. As a matter of course, no portion of this rain-dust could pass from the Amazon to the Cape de Verds, *near the surface of the earth*, for the reason that the northeast wind is a head-wind. But we have seen, that as much wind as flows to the equator from the poles, flows back again from the equator to the poles, and that this counterflow is in the form of an upper current. The upper current, from the mouth of the Amazon to the Cape de Verds, is a southwest wind, or a fair wind for our rain-dust. Those little whirlwinds described by Humboldt, as throwing up columns of dust, and giving a lurid aspect to the parched-up valley of the Amazon, come now to the aid of our theory. Tossing high into the upper atmosphere the dust with which their electrical vortices are charged, they deliver it to the southwest wind, and this wind transports it to the Cape de Verds, where in calms, and in opposing ærial currents, it silts down like the snow flake. It is thus that the carrier-pigeon delivers his tally to the seaman, and to the philosopher. This completes the chain of our proof. We have first shown from *à priori* reasoning, that the trade-winds *should* cross at the equator, and then by testimony of the rain-gauge, and the tally described, that they *do* cross. Or, in other words, the argument from final causes, is made good by the operation of physical causes. We thus see the nimble winds lifting up their burthen of water in the South Atlantic, South Pacific, and Indian Oceans, and hurrying off with it, and pouring it down on our Northern Hemisphere, while other winds are scooping up the waters from our North Atlantic Ocean, and Gulf of Mexico, and hurrying off with them in the contrary direction. These swift, and silent messengers, pass and repass

each other, on their respective errands, with the utmost regularity, spilling some of the water from their over-full buckets, by the way, it is true, but without the slightest jostling or confusion. The moment their buckets are emptied, which is seldom the case until they reach the poles to which they are respectively bound, they wheel about, and start back to their cisterns in the sea, to replenish their supply; and thus they continue their ceaseless toil, by day and by night, filling the barn of the husbandman with abundant crops, and painting the lily and the rose.

But by what agency of nature is it, that the two trade-winds, when they meet at the equator, are enabled to preserve their identity, and cross each other, 'without mixing and mingling?' The seaman, in examining the atmosphere, in the two hemispheres, by all the known chemical and mechanical tests, finds no diversity in it, just as Cassius, on weighing the blood of Cæsar, found it weighed no more than the blood of any other man. It is composed of oxygen, and nitrogen, in the same proportions, whether it be examined at the one tropic or the other, or at its crossing place, the equator. It presses the piston of his steam-engine home to the vacuum in the cylinder, with the same pressure of fifteen pounds to the square inch, whether his steamship be ploughing the waters of the Arctic, or the Antarctic Seas. The cocoanut tree of Tahiti, in the far-off Pacific, midway between California and Japan, grows as rapidly upon it, as its congener in Cuba or St. Domingo, in our own Caribbean Sea; and one perceives no difference between the magnolias of the Mississippi, and those of the Amazon. In what respect, then, do these two winds differ? They must differ, or they would not pass each other in their flights, but would intermix, lose their identity, and be as likely to turn back, as to go forward. The agent, whatever it may be, is a subtle, and, at the same time, a peaceful one. It is so subtle as to resist the tests of our most delicate instruments, and yet so powerful as to enable those water-carriers, the winds, to bear forward their burthens to the uttermost ends of the earth, without accident or mistake. The better opinion is, that it is magnetism which is the secret, and subtle agent which accom-

plishes this wonderful result. If a current of magnetism be passed through a wire coiled *against the sun*, or from right to left, it will receive a different polarity, from a similar current passed through one coiled *with the sun*, or from left to right. Now, the atmosphere, in storms, and Admiral Semmes thinks, in moderate breezes also, gyrates in both hemispheres against the sun, as its normal law. But this gyration *against the sun*, in the Northern Hemisphere, is, as we have seen, from right to left, while in the Southern Hemisphere, the gyration against that luminary is from left to right. The gyration of the winds in the two different hemispheres is therefore different. The winds proceeding from the equator to the poles, gyrate around the poles, which has the same effect upon them, as the passing of the two magnetic currents through the two coils of wire has, upon those currents, to wit, it polarizes them—it being a well established fact that the oxygen of the atmosphere is magnetic. It is, in all probability, this polarity of the winds which prevents them from mingling at the equator, and enables each current to proceed on its journey unmolested by the other. The different temperatures, at which the winds meet, may, however, have something to do with preventing them from mingling.

The transition from meteorology to hydrology is easy—the air and the water both being fluids, as has been said, and governed by the same laws. Heat is the principal agent which puts the atmosphere in motion. It is also the chief agent which gives motion to the waters; and the motion of the waters, though more sluggish, is quite as constant as that of the atmosphere. We do not speak here of the tides, but of the currents. Let us imagine, for a moment, the earth to be at rest upon its axis, and the influence of heat to be withdrawn from it. The waters would at once become dead and stagnant. If now we place the sun in the firmament, and he begins to dart forth his rays upon the equatorial regions of the earth, heating and rarefying the waters, these will begin to move towards the poles; and the moment they begin to move towards the poles, polar currents will begin to move toward the equator. We thus establish a current and a counter-current, and this is the normal

law of currents; for as we said of the atmosphere, so we may say of the water, that whenever a particle flows away from a place, a particle must flow back to it. We have seen how the currents of atmosphere, to and from the poles and the equator, pass and repass each other, without jostling, or confusion. The same is the case with the currents of water. Sometimes an ellipse will be established, and the waters will flow in opposite directions, and in perfect harmony, almost side by side with each other, as pointed out by Admiral Semmes, in his cruises in the Indian and other oceans; and, at others, a series of surface and under-currents will be the machinery resorted to by Nature, to accomplish her purposes. But besides the heat of the sun, there are numerous other agents which contribute to put the waters in motion. Among these may be mentioned, evaporation—produced, it is true, by heat, (but not hitherto considered by us, in this connection,) and by the diurnal motion of the earth from west to east. When speaking of the gigantic labors performed by the atmosphere, in distributing rain over the earth, we showed that the water annually evaporated from the earth's surface would be sufficient to fill a lake twenty-four thousand miles long, three thousand miles wide, and sixteen feet deep. How wonderful the effect of the scooping up of this immense body of water, during the space of a year, upon the equilibrium of the ocean! The effect of the diurnal motion of the earth from west to east, upon the currents, is similar to that which it has upon the winds, as described by us, viz., to give them a westerly direction. A current setting out from the pole, where the influence of the diurnal motion is zero, will acquire more and more of a westerly direction, as it proceeds toward the equator—the earth slipping from under the waters, as it were, from west to east, in a ratio increasing with the cosine of the latitude. As a rule, therefore, southerly currents (in the Northern Hemisphere) flow to the southwest, and northerly currents to the northeast. With these remarks as to currents in general, we shall devote the remainder of our space, in this article, to the consideration of two of the most remarkable currents, in our hemisphere, viz., the Gulf Stream in the Atlantic Ocean, and the Kuro in the North Pacific.

The former has been accurately mapped out, by the U. S. Coast Survey, and the latter by Mr. Bent, the title of whose lecture stands at the head of this article. There is a striking resemblance between these two currents, and they perform, in a great measure, similar functions for the seas through which they flow, and the continents, and islands, on which they impinge. Both of these streams were long known to navigators, before science took any notice of them. Dr. Franklin was among the first to remark upon the Gulf Stream, in connection with science; but the sciences of meteorology and hydrology were both so imperfectly developed in his day, that it is not wonderful that he fell into some errors on the subject. The Doctor's idea was, that it was the trade-winds of the Atlantic which put the Gulf Stream in motion; a cause entirely inadequate to the effect. He supposed that these winds drove the waters of the Atlantic into the Gulf of Mexico, and there heaped them up, producing some such 'head,' as is produced in a mill-dam, whence the flow to a lower level would be easy and natural. But the fact is, that the waters of the Gulf Stream, instead of flowing down hill, flow up hill, the depth of the stream being, for instance, much greater at its exit from the Florida Pass, than off Cape Hatteras. Besides, Admiral Semmes tells us, that much more water flows out of the Gulf of Mexico, by the Florida Pass, than flows into it, by the Yucatan Pass, and the various rivers that disembogue into it. Now, no more water can flow out of this Gulf than flows into it; else the Gulf would soon become dry. But it does not become dry, and hence water must flow into it by some other channel, than those already mentioned. In other words, it is plain, that there must be an under-current running below the Gulf Stream, and in an opposite direction. We know that there is a hyperborean current, setting from Baffin's Bay toward the Banks of Newfoundland. When this current meets the Gulf Stream, off Cape Race, or thereabout, it descends, and becomes the under-current we have described. This theory removes all difficulties, and the theory corresponds entirely with that with which we set out, viz., that for every particle of water that flows away from the equator, a particle must flow toward

it; and if it cannot flow toward it, in an ellipse, it must flow toward it as an under-current. This great stream flows northeast, in obedience to the law noticed a little while back; but all its waters do not proceed to the pole. The current changes its course, more and more to the eastward, as it proceeds toward the north. The reason is obvious. We showed that when a current started from the pole toward the equator, it took a westerly direction, and that this direction increased as the cosine of the latitude, and that, conversely, a current from the equator toward the pole, took an easterly direction, bending more and more toward the east, as it increased its latitude. This is a law resulting from the diurnal motion of the earth on its axis, and it is this law which the Gulf Stream obeys, as one may see by reference to a map. As there is a current from Baffin's Bay, under-running the Gulf Stream, it is seen that the waters of this stream do not touch the bottom of the sea, in any part of their journey toward the northeast, but flow, as it were, over a cushion of cold water. Nor do they touch any part of the American coast. An important result follows from this fencing off of the great body of warm water from the bottom of the sea, and from the land. Water, as compared with land, is a non-conductor of heat. If the Gulf Stream impinged upon the land, in any part of its course along the American coast, the contest would liberate a large proportion of its heat, but this heat has been bottled up (if we may use the expression) for a different purpose, namely, that of mitigating the rigors of the climate of Northern Europe. London, in the latitude of 50°, and Paris still further south, would both be about as cold as St. Petersburg, but for the warmth conveyed to them by the Gulf Stream. Hence the care with which it has been provided, that this stream shall flow over a cushion of water, placed between it and the bottom of the sea, and by the side of a wall of water placed between it and the American coast; and the equal care with which it has been provided that no such wall shall be interposed between it and the English and Irish coasts. Here it impinges upon the land and parts with a large proportion of its heat. The course of the Gulf Stream may be briefly described as follows: Issuing out of the Gulf of Mexico, be-

tween Cape Florida and the Bahama Islands, it runs parallel with the American coast, in a general northeasterly direction, until it reaches the banks of Newfoundland, whence it deflects still more to the eastward, and, crossing the ocean, impinges, as before stated, on the course of Ireland and England. Hence it pursues its course—its current, by this time, having become very sluggish—toward and along the coasts of Spain and Portugal; thence over to the African coast; along this coast down to the Canaries, and Cape de Verds, where it falls into the great equatorial current, that carries it back again to the Gulf of Mexico, whence it issued. It thus describes some such circle or ellipse, as Admiral Semmes found the great Agulhas current to describe, in the Indian Ocean, when he was cruising in that ocean, in the Alabama. But the current which more nearly resembles the Gulf Stream in its origin, temperature, and course, is the Kuro-Siwo, described by Mr. Bent. This is, indeed, the Gulf Stream of the North Pacific. Like the Gulf Stream of the Atlantic, it must have been long known to the trading vessels, before it came under the observation of scientific men; and America has the honor of being the first among the nations, to generalize the facts observed in relation to this stream, and give them to the world in a scientific form. As before remarked, Mr. Bent, the chief hydrographer in Commodore Perry's expedition to Japan, is entitled to the credit of this discovery, for such it may be called. Mr. Bent has himself so well described the circumstances under which he first fell in with this stream, that we prefer to let him give his own account of it. He says:

> At the close of the Mexican war in 1848, the U. S. ship Preble, to which I was attached as sailing master or navigator, was ordered from California on special service to China. In crossing the Pacific Ocean, we stopped at the Sandwich Islands, where we found a large number of American whalers assembled for the winter. In conversation with one of the most intelligent of these captains, he told me he was just from a cruise in the Arctic Ocean, and that, in pursuit of whales, he had gone '*several hundred miles to the northward and eastward from Behring's Straits, and three hundred miles beyond the limits of his chart, and with an open sea still before him as far as could be seen in that direction.*' From the Sandwich Islands we kept between the tropics, to avail ourselves of the northeast trade winds, and also to take advantage of the equatorial current, the latter of which we found setting to the westward at the rate of from thirty

to eighty miles per day, and which, spreading from the tropic of Cancer to that of Capricorn, has a width as great as that of the Atlantic Ocean.

I had before crossed this current some eight or ten times at various seasons of the year, and therefore knew from personal observation, that it is as constant in its flow to the westward as that of the equatorial current in the Atlantic.

A few months after our arrival in China, intelligence was received from the Governor General of Java that a number of shipwrecked American seamen were in prison at Nagasaki, in Japan, and the Preble was ordered to proceed there at once, and endeavor to obtain their release.

This was in mid-winter, when the northeast monsoon was at its height, when no vessels but steamers or opium clippers attempted to make passages to the north coast of China.

The almost universal prediction of both Americans and Englishmen at Hong Kong was, that the Preble could not accomplish the voyage at that season of the year, but with genuine pluck the captain always replied that she should do so, or else lay her bones in the bottom of the China Sea. I mention this to show how unknown were the dangers, and how unfrequented the seas were at that time, lying between the southern coast of China and Japan.

As soon as we got out of port we encountered the full force of, not only the monsoon, but also in a measure that of the southerly current which flows constantly down the Formosa channel, and which is so strong that sailing vessels cannot beat to windward against it, but are obliged to run out to the eastward of Formosa, to take advantage of a current setting to the northward from that point.

Contending against the first of these currents, the Preble was ten or twelve days reaching the south end of Formosa, although the distance is only about two hundred and fifty miles. So soon as she doubled the south end of the island, and had got out of this current, which we found running southward at the rate of six miles per hour, in the channel way, the wind freshened into a stiff gale from northeast, compelling us to heave the ship to under storm sails, and preventing our getting any observations for latitude and longitude for three consecutive days. (This being the case, we did not, of course, know where the ship was, only approximately.) The effect of the wind upon a ship lying to in this way, if uninfluenced by ocean currents, would be to drift or drive to per leeward in the direction the wind was blowing, at the rate of about thirty miles per day. At the expiration of three days, therefore, when the storm abated, and land was discovered to the westward, we thought it must be the Bashee Islands, which lie some hundred miles to the southward of Formosa, but on standing to we found it to be the northern end of this latter island, and that we had been actually carried during this time by a current ninety miles to the northward against the wind, or one hundred and eighty miles to the northward of where the ship would have been had there been no current, and near five hundred miles to the north of where she would have been had she continued within the influence of the southerly current of the Formosa channel.

After determining our position on the chart, we stood to the eastward for the Loo Choo Islands, running across and out of this northerly current.

From Loo Choo our course was nearly due north to Nagasaki. In making this passage we found that we again crossed the northerly current, but that there

it was inclining a good deal to the eastward, and we ran out of it as we passed under the land of the Japan Islands. After accomplishing the object of our mission, we ran to the westward from Nagasaki to Shanghai, and thence down the Formosa channel to Hong Kong, carrying with us the strong southerly current before spoken of, although by this time the northeast monsoon had materially abated. In the following summer the Preble was ordered back to California.

The monsoon had then changed, and the wind was from southwest. Yet we found the current still setting in the Formosa channel, and on passing the south end of Formosa we again fell at once into the current setting to the northward, but which we found curved gradually to the eastward with us as we pushed our course on the arc of a great circle in that direction. This course, however, we were obliged to abandon about lat. 35 deg. N., long. 145 deg. E., owing to a malignant epidemic that had broken out in the ship, and which was aggravated by the fogs and mists that overhung the current.

The experience of this cruise confirmed the existence of two powerful currents, which, in a general way, were known to vessels cruising or trading in those seas, and which had been briefly noticed by writers upon the subject, but in what way, if at all, they formed a part of the great oceanic, or interoceanic circulation, was not known, and they consequently formed a bewildering subject to those who had to encounter them; particularly, as it was also known, that only a few miles to the southward of the south end of Formosa, the great equatorial current poured its immense volume into the China Sea, almost *directly at right angles to both of these currents just spoken of!* And this illustration of their constant flow in fixed and opposite directions, regardless of winds or seasons, their great velocity and their juxtaposition, were calculated to make a strong impression upon the mind, and set it to work to find out their origin, and whither they led.

Sailing again for China and Japan in 1853, in the expedition under Commodore Perry, I had fortunately assigned to me such subjects for scientific and professional investigation as enabled me to have such instructions issued to the various vessels of the squadron as would insure their keeping very accurate and full meteorological records.

After our return to the United States, I was detailed to assist Lieut. W. L. Maury to prepare for publication the charts and sailing directions of the survey made by the expedition, and these records were placed in my hands for the purpose of tracing out as far as possible the location, direction and force of the currents in that part of the Pacific and adjacent seas lying within the cruising grounds of the squadron.

The result of this work was the discovery of the fact that these currents formed a part of a great system in the Pacific, identical in all its essential features with that of the equatorial current, Gulf Stream and counter current in the Atlantic, as will be seen by referring to my report on the 'Kuro Siwo,' in the second volume of the Japan expedition report.

To run a brief parallel between the Gulf Stream of the Atlantic, and the Kuro-Siwo of the Pacific, it will be necessary to sketch the general features and course of each.

1. They both spring from the northern edge of the equatorial current, in about 22° of north latitude.

2. They both, at first, start directly north, and then curve gradually toward the east.

3. Both of them are of the same, or very nearly the same, mean temperature.

4. Both run over cushions of cold water, laid for them at the bottom of the sea, and between walls of cold water, on either side of them; thus being enabled to preserve their heat, until reaching the points where it is to be liberated.

5. The Gulf Stream impinges upon, and delivers its heat up, to the coasts and countries of Northern Europe; the Kuro-Siwo waters the shores of Northern Asia, and there liberates its pent-up heat; both, alike, ameliorating those hyperborean climates.

6. And, finally, both return and find their way back again to the point of departure. Mr. Bent thus adds still another instance to the circular, or ellipse, system of Admiral Semmes.

With a few remarks upon the 'thermometric gateways to the poles,' we shall bring this paper to a close. How often it happens that the greatest discoveries are the simplest; so simple, indeed, that everybody wonders that no one had thought of it before. It has been long known—ever since Dr. Franklin was a commissioner of the Colonies, at the British Court, in ante-revolutionary times—that the Gulf Stream, or at least a branch of it, flowed to the Arctic regions, by the way of Spitzbergen; thus pointing out to the explorer the true way to the pole, as unerringly as the wild buffalo of the west points out to the hunter, by its beaten paths, the easiest and best routes through the Rocky Mountains. And yet, strange to say, all the polar navigators, from Parry to Dr. Kane, have ignored this fact, and sought passages to the pole, in vain, far to the westward, by way of Davis's Strait, and Baffin's Bay. Whilst nature has been beckoning to them, and pointing out the true thermal gateway to the pole, they have cast their eyes in a different direction, and wandered about, in *culs de sac*, baffled, and wearied, and driven back by impossible barriers of ice, as often as they have made the attempt. Mr. Bent was

the first to call the attention of the scientific world, to this singular, and fatal mistake of the early explorers, and every one wonders why no one thought of it before. Mr. Bent's theory was first confirmed by a conversation he had with a whaler in the Sandwich Islands, who informed him, that he had passed in his ship to a very high degree of latitude, to the eastward of Spitzbergen, and still found an open sea before him. The testimony of Captain (now Commodore) John Rodgers, of the U. S. North Pacific Exploring Expedition, is to the same effect. This officer penetrated to the mouth of Behring's Strait, in search of Herald Island, reported by a British officer as lying to the northward and westward of that Strait. The island was not found, but Captain Rodgers, in a conversation with Mr. Bent, informed him, that although he found an icy barrier barring his farther progress in that direction—the northwest—yet as far as he proceeded to the northward and eastward, beyond the Strait, he found an open sea, with a gentle current setting to the northward. The facts are meagre, it is true, but as far as they go, they sustain the theory of Mr. Bent. It may not be true, that there is a clear pathway open in this direction to the poles, as Mr. Bent thinks, but from the foregoing data it appears pretty plain, that if there be any approach open to the pole at all, it is in this direction.

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ART. VII.—*The Practice in Courts of Justice in England and the United States.* By Conway Robinson. Vol. V. 1868. Richmond: Woodhouse & Parkham; Baltimore: Cushings & Bailey; Philadelphia: T. & J. W. Johnson & Co.

The production of a work like the one whose title we have placed at the head of this article is a credit to the country as great as it is to the profession. To demonstrate that the innumerable decisions of the English Courts and of our several

State Courts may be reduced to a system, and that an established practice may be derived from them is to accomplish a great work. The learned author of the Practice, of which the fifth volume is now presented to the public, has adopted a modest title, which does not at all describe the character or scope of the work. Instead of being a mere book of Practice, indicating the peculiar modes of procedure in certain courts, or in certain actions, it is a complete digest of the law on the matters treated of and as it now exists in England and this country. These volumes bear no resemblance to the books ordinarily known as books of Practice, and can be so called only as embodying all that is necessary to be known in order to conduct a cause from the impetration of the writ to the defences pointed out in this volume,—that is, *to practise the law.* In the sister science of medicine, the knowledge of the human frame, its anatomical structure, its physiology, and its pathology are first studied; then the properties of the various substances contained in the materia medica are mastered; and, lastly, the great object of the science is unfolded in the books of practice, that is to say, the proper application of the remedial agents to the diseased condition of the system. In this higher sense alone can these volumes, full of learning, of industrious research, and of careful reflection, be called books of practice.

Law—municipal law—may doubtless be ranked among the experimental sciences. In theory, it is considered a system by which a general rule of action is established, 'commanding what is right and prohibiting what is wrong,' indicating therefore, in advance, the rights to which Man, as a member of the social system, is entitled, the duties he is required to perform, the remedies by which those rights may be enforced and the consequences resulting from a breach of those duties. Adapted, as the laws are intended to be, to the condition of man at the time the system is formed, they must of necessity change or be changed, according as society and civilization advance. Such laws as would have been ample to have protected the rights of our rude forefathers in the days of William the Conqueror, when each feudal baron was an autocrat, when the tenures of land were by knight service, or plough service, or sarjeanty, or

cornage, and when commerce was utterly unknown, would have been but little adapted to the social system in the days of the Cavaliers and of Cromwell. The laws which were suited to the condition of Englishmen in the reign of the Stuarts, would be as utterly inadequate to the condition of their descendants in this country at the present time, as the education and habits of the Squires of the seventeenth century would be unsuited to the position and duties of the American gentleman of the nineteenth century.

It is manifest, therefore, that the laws of a country are not and cannot be framed after a pattern, but that they grow up as they are required by some public necessity, or demanded by some private interest, that all their parts, instead of being constructed at one time, and with regard to symmetry of proportion or unity of design, are passed from time to time, in order to remedy some supposed evil, or to meet some urgent requirement of the governors or the governed. The laws of a country, then, instead of being constructed, like the dome of St. Peter's, according to a prepared model, perfect in all its proportions, and gaining strength, and beauty, and utility from every timber, are built up, as the pioneer constructs his dwelling,—rude, and narrow, and inadequate at first,—increasing with his increasing wants and his newly-discovered means, so that, by adding one room to another, a required wing here, and a necessary story there, his building changes with his need and gradually becomes equal to his own progress and to the development of society around him. The result will depend on the skill and judgment of the architect. If he be thoughtful, he will adapt his improvements to his wants; if he be judicious, he will not be compelled to be constantly tearing down and building anew; if he have skill and taste, his structure, though erected piecemeal, will give evidence of unity of design. It is in this sense that law must be placed among the experimental sciences. The enactments of the law-making power require to be tested by experience, in order that their nature may be ascertained, and the necessity for change or amendment determined on. If such necessity is found to exist, the success with which the error will be corrected will depend on the skill of the

legislator, his knowledge of the state of the law as it exists, his experience of its application and failure, his ability to adopt the best mode of correcting the evil, his familiarity with the language of the law, his singleness of purpose, his judgment and his forethought. No man can successfully undertake to amend a law already in existence, unless he is familiar with the provisions of the existing law; no man can legislate on a subject requiring the intervention of the legislature, unless he fully understands the deficiency to be supplied, and the evils flowing from the absence of proper legislation. He should have studied the previous enactments on the subject; he should have ascertained from experience or observation the practical working of those enactments, and having thus ascertained that the law, as it stood, was inadequate to effect the objects designed, he should apply himself, with honesty of purpose, to frame the proper substitute. Not only must he have knowledge rendered practical by experience, and an honest desire to remedy the ascertained evil, but he must bring to his work a thorough acquaintance with apt expressions and technical language; he must be a man capable of anticipating, to a certain extent, the working of the new legislation. He requires, therefore, learning, ability, experience, and honesty. Is it strange, then, that, looking to the qualifications required of a legislator, we should, in this country, have such a mass of worthless legislation; that one-half of the sessions of our too busy and too frequent assemblies should be occupied in repealing and in amending the sad work of their immediate predecessors? Men, without knowledge, without learning, without experience, are suddenly elevated to the position of legislators. The honest among them soon fall a prey to the more astute and interested, and the whole legislative body is warped and controlled by a set of stipendiaries, hovering around the halls like birds of prey. The consequence is, either that the new law bears on its face the impress of ignorance, and cannot be made to harmonize with the previous legislation *in pari materia*, or, under the guise of some general amendment, is soon found to have been procured in order to accomplish some private end merely. To deduce from such legislation a system, to bring order out of chaos, to reconcile

conflicting laws, to ascertain, (and that in a number of States,) a general practice, is of itself no easy task. It requires extended learning, unwearied patience, and great industry.

How different the course of legislation in England! Devotion to their ancient laws carries the inhabitants of Great Britain to the other extreme. Reforms, instead of following the example of the too hasty action of our own law-producing country, drag their slow length along from one reign to another. Even in the days of that greatest of princes, Alfred, his reverence for the established laws of his forefathers is seen in his noteworthy preamble to the collection sanctioned by him. 'Hence I, King Alfred,' says this lawgiver, 'gathered them together, and commanded *many of those to be written down which our forefathers observed*—those which I liked—and those which I did not like, by the advice of my Witan, I threw aside. For *I durst not venture* to set down in writing *over many of my own*, since I knew not which among them would please those who should come after us. But those which I met with either of the days of me, my kinsman, or of Offa, King of Mercia, or of Athelbert, who was the first of the English who received baptism—those which appeared to me to be the justest—I have here collected. Then I, Alfred, King of the West Saxons, showed these to all my Witan, and they then said that they were all willing to observe them.' Throw aside he might, by the advice of his National Council, some of the ancient laws of the kingdom, which were unjust, or had grown obselete, and were no longer suited to his day, but even Alfred 'durst not venture to add many of his own.' Having collected, not decreed, the laws which appeared to him 'the justest,' he carefully submitted the digested code again to his Witanagemote, and adopted those only which were unanimously sanctioned.

Modern enlightenment and modern progress have in no degree weakened the affection of the English for their common law. They cling with fond tenacity to the form, even when the substance has departed. The influence of the feudal system which has gradually disappeared in point of fact from the island, still lingers, in a thousand ways, in their land tenures,

their judicial proceedings, and their legal forms. One of the cleverest of their modern lawyers, in giving his testimony before the Reform Commissioners, said: 'In truth, I consider the varieties of tenures, in the narrow extent in which they exist, as a beauty, and not as a blemish. They illustrate the antiquities, and they confirm the history, of the country. They bring home to our apprehensions ancient manners and customs, which no longer exist, and set before our eyes a faint and interesting picture of feudal relations. All this may be prejudice, but I own I should be sorry to see all these venerable remains sacrificed to a dry and barren uniformity.'

We confess that we too are not without our prejudices; we are prejudiced in favor of the experience and learning of the past, and do not like to see it rudely marred. We do not rejoice at witnessing the beautiful science of pleading swept away by a single act of an unskilled legislature; we are not advocates for unlimited amendments, and for the right to change at discretion from one form of action to another. We have many other prejudices. We are, in fine, prejudiced against the effort of any body of men to place ignorance and inexperience on a par with knowledge and long practice. As such efforts must surely fail, so they only increase the difficulties of litigation, and open up an endless number of new questions for the solution of the courts. And yet we recognize the law as an experimental science, and, therefore, as in every experimental science, we recognize in it a 'tendency towards perfection.' That tendency leads to the improvement and advancement of the science, in precisely the same way as the science of chemistry or astronomy advances. The axiom, that by our imperfections we are perfected, is as applicable to the progress of the law as it is to the progress of all sciences, moral and physical; in other words, by the discovery of the imperfections in any experimental science, we are enabled to direct our attention to the proper mode of remedying them, and thereby of aiding the development of the particular science in its tendency to perfection. In order, then, to learn by what means this tendency may best be aided, we must endeavor to understand clearly its legitimate mode of development.

By a general law, society is continually progressing. Although there may be, as we have shown, an occasional retrograde movement in certain parts, at certain periods, or in certain countries, the whole body advances regularly and steadily. 'Human affairs,' to borrow the felicitous language of one of the clearest thinkers of this country, 'must be looked upon as in continuous movement, not wandering in an arbitrary manner here and there, but proceeding in a perfectly definite course. Whatever may be the present state, it is altogether transient. All systems of civil life are therefore ephemeral. Time brings new external conditions; the manner of thought is modified; with thought, action. Institutions of all kinds must hence participate in this fleeting nature.' . . . 'Nations are only transitional forms of humanity.' . . . . 'Though they may encounter disaster, their absolute course can never be retrograde; it is always onward, even if tending to dissolution. It is as with the individual, who is equally advancing in infancy, in maturity, in old age. Pascal was more than justified in his assertion, that "the entire succession of men, through the whole course of ages, must be regarded as one man, always living and incessantly learning."'[1]

It will be found, by a careful study of the history of the past, that no misfortune stops this general progress of nations and of mankind. The most disastrous wars, the heaviest taxation, the most corrupt tribunals, and the absence of all patriotism on the part of the rulers, though they may for a time retard and modify, cannot prevent the influence and ultimate triumph of this inexorable law. If our space would permit, we might illustrate it, by the history of our own country within the last decade.

As society, then, in its onward progress is continually passing through its transition states and advancing towards its ultimate perfection, the law governing its individual members must also be continually changing and adapting itself to the modified condition of the social system. Traced to its true source, *Magna Charta* will be found to have resulted from that

[1] Draper's Intel. Develop., p. 12.

stride of the human understanding, which took place in the thirteenth century in Europe, rather than to the determination of the sturdy barons, who forced King John to yield his assent at Runnymede. The reforms in religious institutions, the ardor and enthusiasm of the mendicant Dominicans and Franciscans, the spread of the scholastic philosophy, to which the human intellect is so much indebted for its vigor and acuteness, the foundation of a native literature, and the consequences of the Crusades, had made themselves felt in every portion of the kingdom, and had prepared the minds of the people for that social development which necessitated the principles announced in the *Great Charter*. The Barons' Wars, as the great struggle with the King was called, only compelled the recognition of those principles by the chief of the kingdom in such a form that they could not be gainsaid.

The wonderful advancement in the administration of justice in the beginning of the seventeenth century in England by the introduction of Lord Bacon's ordinances—'the pole star of equity,'—which reduced the chancery practice to a system, and which are said to have produced 'as great a change in the administration of equity as his *Novum Organum* in physics and experimental philosophy,' was much more the necessary result of the conflict between Lord Coke and Chancellor Ellesmere, than of any wonderful ability in this particular on the part of Lord Verulam.

When the invention of the compass, the discovery of the New World, and the important voyage of Vasco de Gama around the Cape of Good Hope, gave rise to that prodigious maritime development which took place in Western Europe, England first entered on that career of commerce, which gradually made her, in the eighteenth century, the mistress of the seas. Her trade was spread over the whole world; her empire extended from the rising to the setting sun; her manufactures and her money were exchanged for the peculiar products of every country on the face of the earth. It was under these circumstances that the Law Merchant became a necessity, and grew, under the controlling influence of Lord Mansfield, to that proportion which it now presents to the civilized world. Bills

of Exchange, Letters of Credit, the Laws of Shipping, Libels, Affreightment, Insurance, all sprang, as a necessary consequence, from the wants which every day's experience exhibited, and the body of the law in that direction moved towards improvement and perfection *pari passu* with the extension of commerce and the requirements of trade.

Again, just as the spread of intelligence and the multiplied intercourse brought about by the allurements of commerce, modified existing enactments, and introduced an entirely new system of laws adapted to the advancement of society, so the progress of the arts and sciences has, from time to time, entirely revolutionized many branches of the law. With the invention of the steam-engine, and the introduction of steamboats and railroads, act after act has been passed in England and this country, to protect the rights of passengers and consignors, and to define the obligations of such common carriers. A new system has sprung up, and the books are filled with decisions of the appellate tribunals, nicely distinguishing between their obligations to their employees, to passengers, and to the public. The invention and introduction into general use of the telegraph, have greatly modified the doctrines of notice, and have entirely revolutionized the usages of trade. Scarcely a day passes, in which some new invention is not patented in London, or at Washington, and the consequence is, that, besides the establishment of a code of Patent Laws, the application of the general principles of right to the thousands of controversies that have arisen on both sides of the Atlantic, has originated a distinct branch of the law known as the Patent Law.

In this way, the progress and development of the law have marched hand in hand with the progress and development of the arts and sciences. No great discovery can be made in science; no application of that discovery can be made to the arts; no ingenious contrivance can be brought into general use without its modifying and controlling, sooner or later, the laws of the land. And just in proportion as that discovery, or that application, tends to promote the happiness of mankind, does the law, which marches by its side, tend towards its ultimate perfection.

These are some of the general considerations, which operate in all parts of the world in which law prevails, to control its development, and to give direction to the channel in which that development must take place. There are other considerations which are peculiar to different countries, and which depend on the character of their institutions. The rapidity, for instance, with which our own country advanced from infancy to manhood; the large number of emigrants who flocked to our shores, and the immense growth of our cities, induced the legislatures of the various States to encourage building, and gave rise to a system of laws known as the Mechanic's Lien Law. The habits of independence engendered in the minds of the people by our peculiar institutions, have here, more than anywhere else, made every man desirous of being the owner of his homestead, however humble, and in consequence, a species of joint stock company, called Building Associations, having that end in view, are to be found in every village and hamlet throughout the land. These associations, and others of a cognate character have been the subject of appropriate legislation, and of a series of decisions on entirely new questions.

The credit system of the United States, which has been one of the causes of its rapid development and of its many financial disasters, has made fortunes uncertain and wealth precarious. Life assurances have become, in consequence, a protection and an investment—a protection to families against the reverses of trade, and an investment to swell the estate of capitalists. The travelling character of our people, and their fondness for locomotion, have extended these assurances to protection against accidents by land and water. Legislation and decisions have followed in the wake of these associations, and extended treatises have been published on the law governing them.

Without multiplying examples farther, it must be manifest that law follows, in its advancement, the progress of the nations of the earth, modified in its tendencies by the characteristics of the different peoples it governs, and by the institutions peculiar to them; that those characteristics and those institutions in their turn direct the course of legislation into particular channels, and impress themselves upon their laws, and usages, and

decisions. But the whole body of the law moves forward like a great army marching to its point of destination, narrowing its ranks to pass through a defile, widening as it reaches the open country, changing its shape from time to time, gathering recruits on the route, leaving stragglers and incompetents behind, but still marching onward toward its goal, and becoming more and more perfect in its manœuvres, and its exercises, and its capabilities, day by day, as it advances. To marshal such an army, to review the entire body with a practised eye, to understand its military character in every particular, to know in what consists its strength, and wherein its weakness lies, to make the whole move as one intelligent body, requires the skill of a consummate general, and the experience of many a conflict.

A body of law moving along in this way through centuries, constantly changing, but always preserving its identity, modified by the progress of society, advancing with the development of the arts and sciences, adapting itself to the peculiar institutions and prejudices of nations, lopped of some of its members, sometimes by accident and sometimes by design, having others engrafted on it in its progress, requires at different periods in its march to be carefully reviewed and described by a well-qualified observer, in order that a correct idea may be obtained and preserved of all its features and peculiarities.

To any one, who will take the time and labor necessary to follow the author of the *Practice* through any one of the volumes of his valuable work, it will be apparent that he is such an observer; that he is, in fact, one of the masters of the science of the law; that he is able to contemplate it as a whole; to toss it up before him as a ball, and see it in all its roundness and all its parts at once, and, at the same time, that he is perfectly familiar with the details of its various branches, and delights to illustrate it by reference to the civil law and to continental jurisprudence.

'There is not,' says Sir James Mackintosh, 'in my opinion, in the whole compass of human affairs, so noble a spectacle as that which is displayed in the progress of jurisprudence; when we may contemplate the cautious and unwearied exertions of

a succession of wise men through a long course of ages, withdrawing every case as it arises from the dangerous power of discretion, and subjecting it to inflexible rules; extending the dominion of justice and reason, and gradually contracting, within the narrowest possible limits, the dominion of brutal force and of arbitrary will.'

In the volume before us, the author has so skilfully divided and subdivided the various defences which may be made to a personal action, that the division itself is suggestive of the best mode of presenting the proper pleas. We look upon the admirable headings and titlings under which the various subjects are treated, as one of the best features of this excellent work. Under each heading, the law is traced down to the present day in England and this country, and the better opinion on each question laid down. Even a cursory examination will satisfy the lawyer of the immense labor necessarily bestowed on the composition of the work. Literally, thousands of decisions have been carefully examined, conflicting opinions studied, and often reconciled, and the most careful analysis presented of leading cases. The industry and research of the author are obvious on every page, and it is manifest, that he has not been content to take the assertion of his predecessors without examination. An example or two of the manner of the author will suffice to show his care, his legal acumen, his varied learning, and his critical analysis.

On page 345, of vol. 1, will be found, under the title, 'How equity by acting on the person may restrain proceedings in another state,' the following

OPINION IN LORD CLARENDON'S TIME:

In 1665, there was a bill before the English Court of Chancery, on which an injunction was granted to stay proceedings, at Leghorn, in a case in which the plaintiff's goods had been there taken. On a motion to dissolve the injunction, it was insisted that it was a new, and Lord Clarendon thought it might be a dangerous case, to stay proceedings there. He advised with the judges, and afterwards declared that they were of opinion the injunction ought to be dissolved.—*Love, &c, vs. Baker, &c.;* Nelson, 103-4; 1 Ch. Cas. 67; 2 Freem. 125. *Eden,* in his treatise on the law of injunction, states that the accounts of this determination are various.—Ch. 7, p. 102, of Am. ed. But the variance is easily explained. The *judges* were of opinion that an injunction doth not lie to stop

a suit at Leghorn, or any other foreign parts.—*Freem.* But the *bar* were of another opinion; as the injunction was not to the foreign court, but to the party who was the King's subject.—1 Ch. Cas. 67; Nelson, 104. The word which in 1 Ch. Cas. —, is *bar*, is in Nelson printed *barons*.

The lawyer will appreciate the skill with which these apparently contradictory reports of the same case are reconciled. Take an example of curious and varied research:

Much interest has been shown in the history of the laws as to usury. In New York, one judge (*Savage, C. J.*) observes, that it was tolerated by the law of Moses, and allowed to be taken by the jews from the gentiles, (Deut., XXIII, 20,) and, therefore, could not have been immoral in itself.—2 Cow., 765. In opinions delivered by others, (Chancellors Kent and Walworth,) the curious reader may find references to the laws of China, (Staunt. Law of China, 158,) the institutes of the Emperor Akber, a descendant of Tamerlane, (1 Gladwin's Ayeen Akbery, 471,) and the present law of the Hindoos, (1 Strange's Hindoo Law, 297,) as well as to the law of Moses, and the laws of Athens, and of Rome. —16 John., 376; 7 Wend., 593. Mr. Beames, in a note to book 7, Ch. 16, at p. 185, of his translation of Glanville, mentions that 'the ancient Romans punished usury with more severity than they did theft,' referring to Cato de Re Rustica, Procœam., &c., &c.—Vol. 5, p. 452, et sub.

On page 576, of the same volume, is the following admirable illustration drawn from the civil law:

There is a very important difference between cases where a contract may be rescinded on account of fraud, and those in which it may be rescinded, on the ground that there is a difference in substance between the thing bargained for and that obtained.—*Gomperty vs. Bartlett*, 2 El. and Bl., 849, 75 Eng. C. L. *Gaurey, &c., vs. Wormersley*, 4 El. and Bl., 133, 82 Eng. C. L. *Ship's* case De J. and S., 544. It is enough to show that there was a fraudulent representation as to *any part* of that which induced the party to enter into the contract which he seeks to rescind; but where there has been an innocent misrepresentation or misapprehension, it does not authorize a rescision, unless it is such as to show that there is a complete difference in substance between what was supposed to be, and what was taken, so as to constitute a failure of consideration.—Blackburn J., in Kennedy *vs.* Panama, &c., Mail Co., Law Rep., 2 Q. B., 587.

The principle is well illustrated in the civil law, as stated in the digest, liber. 18, tit. 4, *De Contrahenda Emptione, leges* 9, 10, 11. There—after laying down the general rule that, where the parties are not at one as to the subject of the contract, there is no agreement, and that this applies where the parties have misapprehended each other as to the *corpus*, as where an absent slave was sold, and the buyer thought he was buying Pamphilus, and the vendor thought he was selling Stichus—and pronouncing the judgment that in such a case there was no bargain, because there was *error in corpore*, the framer of the digest wrote the point thus: '*Inde quæritur, si in ipso corpore non erretur, sed in substantia error sit, ut, puta, si acetum pro vino veneat, aes pro auro, vel plumbum pro argento, vel*

*quid aliud argento simile, an emptio et venditio sit;* and the answer given by the great jurists quoted are to the effect, that if there be misapprehension as to the substance of the thing, there is no contract; but if it be only a difference in some quality or accident, even though the misapprehension may have been the actuating motive to the purchaser, yet the contract remains binding. Paulus says: '*Si æs pro auro veneat, non valet, aliter atque si aurum quidam fuerit deterius autem quam emptor existimaret: tunc enim emptio valet. Ulpianus*, in the eleventh law, puts an example as to the sale of a slave, very similar to that of the unsound horse, in *Street vs. Blay*, 2 Barn., and Adolph., 486, 22 Eng C. L. And the principle of the common law is the same as that of the civil law. The difficulty in every case is to determine, whether the mistake or misapprehension is as to the substance of the whole consideration, going as it were to the root of the matter, or only to some point, even though a material point, an error as to which does not affect the substance of the whole consideration.—Blackburn, J. in Kennedy *vs.* Panama, &c., Mail Co. Law Rep., 2 Q. B., 587-8.

It will thus be seen that these volumes are, as we have already said, far from being mere books of Practice, but that they contain the origin and growth of the different legal principles now in force, and their present practical application, together with the gradual changes which have resulted in the latest decisions. For every proposition announced the authority is added, and a complete digest is thus far presented of all that is valuable and practical in reference to the 'time and place of a transaction,' 'the right of action,' the 'declaration and the subsequent Pleadings.'

Justice Story, in discoursing on the condition of the law in this country, many years ago, observed: 'The mass of the law is accumulating with an almost incredible rapidity, and with the accumulation the labor of students, as well as professors, is seriously augmented. It is impossible not to look without some discouragement upon the ponderous volumes which the next half century will add to the groaning shelves of our jurists. The habits of generalization, which will be acquired and perfected by the liberal studies which I have ventured to recommend, will do something to avert the fearful calamity which threatens us, of being buried alive, not in the catacombs, but in the labyrinths of the Law.'

Could that eminent jurist have survived until the end of the half century of which he spoke, and witnessed the publication of the work of Mr. Conway Robinson, he would have been among the first to have rejoiced at the skill, surpassing that of

Ariadne, with which our author has furnished a magic thread to guide students and professors safely out of the dreaded labyrinth.

The first of Mr. Robinson's series of volumes was published in 1854, and the last has just been issued from the press. The work thus far is, therefore, the result of twenty years of hard labor, allowing a reasonable time for the production of the first volume; longer, indeed, when it is remembered that these volumes are founded on an earlier work, well known to, and highly esteemed by, the bar of Virginia. The next volume is promised in the current year. Subsequent volumes will be needed to furnish us with the law and the practice, after the issues are made up, the mode of trial, the laws regulating evidence, the verdict, the judgment, appeals, &c., &c.,—a lifetime of labor yet before the erudite author. We earnestly hope that Mr. Robinson's valuable life may be spared until he shall have fully completed his great work. When completed, we are satisfied that it will have a place in the library of every lawyer, and form the *vade mecum* of every *nisi prius* judge.

Not many years ago, no book could take its position in the front ranks, unless it had first received the stamp of European approval. Now, however, that this country has produced in general literature such names as Prescott, and Hawthorne, and Longfellow, and that we can boast in the law of such writers as Wheaton, and Kent, and Story; now that the bench has been adorned by such eminent judges as Marshall, and Taney, and the bar rendered illustrious by the ability and learning of such lawyers as Pinkney, and Binney, and Martin, and Webster, it is no longer necessary to postpone our opinions until we have had the sanction of foreign judgments. But, if the sanction of the highest authority in England were necessary to entitle Mr. Robinson to his proper position among the writers on jurisprudence, it is not wanting. His work is already well known to the most distinguished jurists of England. In reference to the volumes preceding the present, one, who for many years adorned the Queen's Bench has, with that degree of candor which can only accompany acknowledged learning and true greatness of mind, used this language, 'I have taken these volumes on

Circuit, and derived considerable assistance from them, and on several occasions have been kept from mistakes by the information and references, which I found readily from the good arrangement of the work, which I consider a very valuable one.'

And the highest authority known to the law of England, has added his testimony to that of his brother: 'Having availed myself,' he writes, 'of a period of comparative leisure, and having gone through the fourth volume of Mr. Robinson's *Practice*, I have the greatest satisfaction of bearing witness to the learning, care, and ability, which this volume, in common with its predecessors, exhibits. The work, which is one of great practical utility, will become a standard work, and will do great honor and credit to its learned author, and will add another item to the debt which the legal profession in this country owes to American jurists, in illustrating the law of the two nations.'

Such words of praise coming from across the broad Atlantic, must be grateful to any author. They are as honorable to the great men from whom they come, as they are flattering to the learned lawyer of whom they are written. If it be the highest meed of praise *laudari a laudatis*, it is surely no less praiseworthy in an English Judge, eminent for his great learning, to confess publicly that he 'on several occasions has been kept from mistakes' on circuit, by the production of an American writer, and in another, still more distinguished by his position, to declare his belief that that production would become a 'standard work,' and would increase the debt of the legal profession of England to the jurists of this country.

ART. VIII.—1. *Campaigns of the Army of the Potomac.* By William Swinton. New York: C. B. Richardson. 1866.

2. *The Twelve Decisive Battles of the War.* By William Swinton. New York: Dick & Fitzgerald. 1867.

3. *Notes on the Rebel Invasion of Maryland and Pennsylvania and the Battle of Gettysburg.* By M. Jacobs. Philadelphia: Lippincott & Co. 1864.

4. *The Rebellion Record.* By Frank Moore. New York: D. Van Nostrand. 1864.

5. *Report of the Joint Committee on the Conduct of the War, at the Second Session, 38th Congress.* Washington. 1865.

6. *Address of Hon. Edward Everett at the consecration of the National Cemetery at Gettysburg.* Boston: Little, Brown & Co. 1864.

7. *Southern History of the War.* By Edward A. Pollard. New York: C. B. Richardson. 1865.

8. *Lee and his Lieutenants.* By Edward A. Pollard. New York: E. B. Treat & Co. 1867.

9. *The Great Rebellion.* By J. T. Headley. Hartford: American Publishing Company. 1866.

The campaign of 1863 in the east, though marked by less activity and fewer great battles than either the preceding or the succeeding one, has been looked upon as by no means inferior to either of them in interest and importance. Indeed, there is no portion of the history of the late war about which more has been written and spoken, than about Chancellorsville and Gettysburg. These two mighty conflicts seem to be invested with an unusual share of that dramatic interest which hangs around the events of the late struggle. We remember well the intense anxiety which filled both sections of the country, when the two armies plunged into the depths of the 'Wilderness,' as if to hide their mortal combat from the view of men; with what breathless suspense the result was waited

for, as, day after day, the mysterious forest resounded with the roar of the contest; what disappointment filled the North when, finally, the largest and best equipped force yet put in the field had been thrown back over the Rappahannock, shattered and broken; what mingled joy and sorrow pervaded the South when the magnificent skill and audacity of her great chieftain had again brought victory, but, in doing so, had paid as the price, Stonewall Jackson. Other circumstances contribute to the interest of Gettysburg. It marks the period of the most formidable irruption made by Southern arms into Northern territory. In weight of artillery, and number of men actually engaged, it probably exceeded any battle of the war. On its issue hung, perhaps, the fate, for the time, of one or more of the large Northern cities. The very date of its occurrence, on the eve of the 4th of July, has added to the impression it has made. It has seemed to many, the turning point of a contest, of which the remainder was but a tremendous death-struggle. No wonder, then, that it has been a favorite theme of the orators, and poets, and historians, of at least one-half the country.

But notwithstanding the interest that centred on Gettysburg, the general conception of the aims, character, and results, of this campaign, is, we think, far from correct. Of course, the contemporary accounts are marked with that distortion of facts, which is the natural consequence of excited passions; but even in the numerous historical estimates which, since the war, have been made of its chief events, we have found no lucid and temperate account of the plans and purposes of the principal actors in the drama, or of the facts themselves which marked its progress. The books placed at the head of this article, are but a few of the many which have furnished pictures of this important period, colored by every shade of passion, prejudice, and ignorance. It is not our purpose to review them in detail, but rather to correct some of their errors by a simple statement of facts.

In the first place, but small reference has been had to the facts of the case, and the condition of the combatants, in the motives usually ascribed to the Confederate leader in the

initiation of this conflict. Thus, this invasion is commonly set forth as the great effort on the part of the Confederacy, to transfer permanently the seat of war in the east from Southern to Northern territory. It is considered not as an 'irruption,' but as a deliberate attempt, by the subjugation and the holding of one or more Northern States, to conquer a peace on Northern soil. It is held up as an example of the fatal change of policy on the part of the South, from 'defensive' to 'offensive' warfare. Thus Mr. Swinton, the fairest and ablest of the Northern historians, says: 'The plan of operations devised by Gen. Lee, was far from the character of a roving expedition. This was invasion, pure and simple, an audacious enterprise, designed to transfer the seat of war from Virginia to the North country, to pass the Susquehannah, to capture Washington, Baltimore, and Philadelphia; in a word, to conquer a peace on the soil of the loyal States.' And again, 'thus was baulked and brought to naught, the scheme of Confederate invasion, an invasion undertaken by an army powerful in numbers, and in the prestige of victory, and aiming at the boldest quarry—the conquest of peace on the soil of the loyal States. . . . . It was an error in its inception, for it was an enterprise that overstepped the limits of that fitting theory of military policy that generally governed the Confederate war-councils, and committed Lee to all the perils and losses of an invasion without any adequate recompense, and even without any well determined military object.' The idea of Mr. Everett is not far different, and he makes the additional mistake of throwing the responsibility of this campaign, on the Confederate Government, and not on Gen. Lee.

Contrast with these, the clear and simple statement of Gen. Lee himself, in his report: 'The position occupied by the enemy,' says he, 'opposite Fredericksburg, being one in which he could not be attacked to advantage, it was determined to draw him from it. The execution of this purpose embraced the relief of the Shenandoah Valley from the troops that had occupied the lower part of it during the winter and spring, and, if practicable, the transfer of the scene of hostilities north of the Potomac. It was thought that the corresponding

movements, on the part of the enemy, to which those contemplated by us would probably give rise, might offer a fair opportunity to strike a blow at the army commanded by General Hooker, and that, in any event, that army would be compelled to leave Virginia, and possibly to draw to its support, troops designed to operate against other parts of the country. In this way, it was supposed, that the enemy's plan of campaign for the summer, would be broken up, and part of the season of active operations be consumed in the formation of new combinations, and the preparations that they would require. In addition to these advantages, it was hoped that valuable results might be attained by military success.'

The position of affairs in Virginia, in May, 1863, was as follows:—Gen. Hooker had opened the Spring Campaign with nearly 130,000 men, well armed and equipped. At the head of this splendid force, he attempted to turn the position of Gen. Lee, who held the line of the south bank of the Rappahannock with between 50,000 and 60,000 men, and either throw him back toward Richmond, or defeat him in the open field, if he ventured to give battle. This plan was not only baffled, but at Chancellorsville the Federal army was defeated, and forced to recross the Rappahannock, with the loss of more than 17,000 men, besides the disabling of three-fourths of its cavalry. The Confederate loss was about 12,000. Each army returned to its old lines, and rested for several weeks after this fierce conflict. The Federal army had met with a severe reverse, but was still formidable. Gen. Hooker had still 100,000 effective men, and of these, 30,000 were in fine condition; for Gen. Hooker had so managed as not to bring them into battle. His strength was diminished somewhat, during the month of May, by the expiration of the term of service of a number of regiments. On the other hand, Gen. Lee brought up Longstreet from Suffolk with two divisions, and, by calling in the conscripts and furloughed men, found himself, about the last of May, at the head of 55,000 infantry, and from 5,000 to 6,000 cavalry,—in all about 61,000 men.[1] The Confederate army occupied the

[1] The total effective force under Gen. Lee in May, 1863, is reported in the *Historical Magazine*, August, 1867, as taken from the captured papers of the U. S. War Department, at 68,352. This (if correct) included all the troops within the

fortified lines they had held during the winter. The position of the Union army was strongly entrenched, within a few miles of their base of supply, and was, indeed, admirably adapted for either offence or defence.

There was no possibility of attacking Hooker in his position. He was strongly fortified; he was but a few miles from the Potomac, by means of which he obtained supplies; and he had undisputed control of that river. But two alternatives were then left to the Confederate leader. One was to remain in the position then occupied, and await the renewal of operations on the part of his antagonist. The other was, by a bold manœuvre, to force him from his vantage ground, to keep him occupied in covering Washington and the Northern cities, and to strike a blow whenever opportunity occurred. The first plan promised nothing. It was merely to wait until the Federal army, unmolested, repaired its losses, and with increased numbers turned his position and forced him to fall back or give battle in the open field to a greatly superior force. It required but little mathematics to show how soon the policy of retreat would lead to the abandonment of all the strongholds and magazines of the Confederacy. The case was different with the other plan. By a movement northward, the Federal army would be forced from its stronghold on the Rappahannock, and compelled to give battle elsewhere, or to hug the defences of Washington. If the latter were the case, a further movement into the Northern States would necessarily draw this army entirely away from these fortified lines, and force it to manœuvre for the protection of Baltimore and Philadelphia. These movements would most probably offer opportunities for striking damaging blows, without risking a general engagement. At least, Virginia would be relieved, for the time, from the tread of hostile armies, and a considerable portion of her people freed from a foreign yoke; abundant supplies would be obtained in place of the scant rations, which had been dealt out for months past; the year's campaign against Richmond

limits of Gen. Lee's command, and thus embraced those in South-Western Virginia, as well as those left before Richmond, and in the country south of the James River. The above numbers represent all the force concentrated for his movement northward, and is derived from the records of the army of Northern Virginia.

completely disarranged; and the Confederate army in position to give battle when and where it might seem expedient. The great Captain who had heretofore controlled, with such consummate skill, the destinies of war in Virginia, did not hesitate as to the plan to be pursued. But, at the same time, he had no chimerical notions about permanently establishing himself with 60,000 men, in the midst of populous States, surrounded by armies double his own in strength, and two hundred miles from his base. He was prepared to take advantage of all the opportunities, which fortune, or the blunders of his adversary, might put in his power; but, to use his own words, 'It was not intended to fight a general battle so far from our base, unless attacked by the enemy.' The conquest, or permanent occupation of Pennsylvania, was a dream of the newspapers, and of enthusiastic gentlemen whose military zeal vastly exceeded their knowledge. No one was more sensible than Gen. Lee of the immense inequality of resources between the two contending parties. No one more anxious than he to husband the men and means placed at his command. Superior skill and strategy alone could enable him to cope with his opponent. He moved northward that he might play the great game under better conditions. Had the battle of Gettysburg never occurred, or had he carried the Federal position there, he would still, when the season for active operations was over, have had to return to some point within reach of his base of supplies.

Another singular misstatement, made by Mr. Swinton, is, that Gen. Lee, in entering upon this campaign, 'expressly promised his corps commanders, that he would not assume the practical offensive, but force his antagonist to attack him.' That such was the general line of policy he had already marked out, we have already shown, but that he made any *promises* on the subject, either to corps commanders, or to any one else, is something entirely at variance with his own character, and with the full confidence always reposed in him by the Government, the people, and the army of the South.

The plan of campaign having been determined upon, the Confederate leader proceeded, with his usual energy, to put it

into execution. By the first of June, all his preparations were made. The losses of Chancellorsville had been repaired; his deficient armament had been greatly improved by means of the captures there made; the troops had been clothed; and the *morale* of the army was of the highest order.

The infantry had been organized into three corps, under Longstreet, Ewell, and A. P. Hill, and each of these corps contained three divisions. The whole cavalry of the army was under command of Stuart. Three brigades, viz: those of Fitz Lee, Hampton, and W. H. F. Lee, were concentrated at Culpepper Court House. Jones's brigade was brought over from the Valley, Robinson's from North Carolina, and added to these, the brigade of Jenkins was ordered to move down the Valley toward Winchester, and the small brigade under Imboden was sent to make demonstrations on the line of the Baltimore and Ohio Railroad near Romney. The artillery of the army still moved with the different corps with which it was intended to act, but was all placed under the command of Gen. Pendleton.

On the 3d of June, McLaws's division of Longstreet's corps, left Fredericksburg for Culpepper Court House, and Hood's division, of the same corps, was ordered to the same place. On the next day, Ewell marched in the same direction, leaving A. P. Hill to occupy the lines at Fredericksburg. By the 8th, these two corps, and the cavalry, were concentrated at Culpepper.

While these movements were going on, General Hooker, who had derived from the Richmond papers, and other sources, some intimations as to the contemplated movement on the 6th of June, threw General Sedgewick, with the Sixth Corps, across the river below Fredericksburg, to make a reconnoissance. So strong was the show of force made by Hill, that the Federal commander was deceived by it, and remained in ignorance of what was going on. Having become aware, however, of the massing of the Confederate cavalry at Culpepper, he determined to send against them his whole cavalry force of six or seven thousand men, and three thousand infantry under Pleasanton. This force crossed the Rappahannock early on the ninth, and

attacked Stuart. Coming suddenly upon one of Stuart's brigades, they took a few prisoners, and gained a temporary advantage; after which a fierce contest ensued, continuing till late in the afternoon, when Pleasanton was finally driven over the river with heavy loss. In this affair, the Federals captured two hundred prisoners, and one battle-flag. The Confederates captured four hundred prisoners, three pieces of artillery, and several battle-flags. This fight revealed to General Hooker, the presence of Ewell at Culpepper, and the fact that Stuart was on the point of moving northward. In consequence of this information, he began, on the 11th and 12th, to move a part of his army cautiously northward, to interpose it between Lee and the Capital; and as he became aware of the further progress of the Confederate army, he broke up altogether from Fredericksburg, and by June 15th had concentrated the greater part of his force at Fairfax Station, in front of Alexandria and Washington. He anticipated that Gen. Lee would move as he had done the year before against Pope, and directed the movements of his own army accordingly.

Meantime General Lee continued to push northward. On the 10th, the day after the cavalry fight, Ewell's corps was sent forward to cross the Blue Ridge by way of Front Royal, and clear out the hostile forces at Winchester, and other points in the lower valley. Ewell, after crossing the Shenandoah, detached Rodes's division to dislodge the enemy at Berryville, and then interpose himself between Winchester and the Potomac, while with Early's and Johnson's divisions he pressed on directly to Winchester, which was then held by Gen. Milroy with five or six thousand infantry. Jenkins and Imboden were already in position to prevent reinforcements reaching Milroy. Ewell reached Winchester on the 14th. The Union troops occupied, to the north of the town, a range of heights strongly fortified. Early's division was sent by a long detour completely around the town, to attack this position from a northwest direction, where alone it seemed pregnable. Late in the evening, Gen. Early got into position, when he attacked and quickly carried the outer defences of the enemy, and captured six pieces of artillery. Night coming on, he lay upon his arms. Mean-

while Johnson was sent by a detour to the east of the town, to occupy the Martinsburg road, and thus intercept Milroy's line of retreat. During the night, the Federal commander cut down his guns and attempted a precipitate retreat to Harper's Ferry. A small part of his command had passed, when Johnson, who had been delayed in getting into position, arrived about daylight at the Martinsburg road, and at once attacked the passing column, soon routing it, and capturing a large number of prisoners. Milroy, with a small party of fugitives, reached Harper's Ferry. While Early had been moving around Winchester, on the 14th, Rodes, having passed through Berryville on the 13th, compelling the force there to retire, pushed on to Martinsburg. He dispersed the force there, taking seven hundred prisoners. The total results of these operations of Ewell were 4,000 prisoners, twenty-nine pieces of artillery, two hundred and seventy wagons and ambulances, and four hundred horses,—all captured with small loss,—and the valley cleared of the enemy. The remnant of his forces retired to Maryland Heights. The campaign had thus opened auspiciously, and this heightened the already lofty anticipations of the South.

Gen. Hooker remained in entire ignorance of the movement of Ewell's corps against Winchester, until it was invested. His attention seemed solely directed to the preventing of Lee from turning his right flank, as he had done that of the Federal army in 1862, so that he could not dash down upon Washington. Hence, when informed at Dumfries, on the 14th, by President Lincoln, of the presence of Ewell at Winchester, he continued his march to Fairfax Station, which was reached next day. On this day, the 15th of June, the Federal rear-guard, having disappeared from his front at Fredericksburg, A. P. Hill, with his three divisions—Anderson's, Heth's, and Pender's—left his position there in accordance with his instructions, and marched toward Culpepper. Hooker's abandonment of the line of the Rappahannock, and close adherence to the Potomac, deprived the Confederate commander of any favorable opportunity for attack, while his movements covered the approaches to Washington. To draw the Federal army farther from its base, as

well as to cover Hill's march from Fredericksburg, Longstreet's corps, consisting of Hood's, Pickett's, and McLaws's divisions, was on this same day, the 15th, moved from Culpepper, along the eastern base of the Blue Ridge, until it occupied Ashby's and Snicker's Gaps, which are on the two main roads leading from the lower valley to Alexandria. The cavalry under Stuart was thrown out to cover Longstreet's front. When Hill had reached Culpepper, he was ordered to continue his march by the route which Ewell had followed into the valley.

While these movements were being effected, Gen. Hooker, and the Federal Commander-in-Chief, Gen. Halleck, at Washington, continued in the most painful ignorance and uncertainty as to the position and purposes of Gen. Lee. His rapid movements were all concealed behind a cloud of cavalry, and, by frequent demonstrations in different directions, he held them in constant suspense and doubt as to his real point of attack. On the 16th, the Washington authorities became alarmed for the safety of Harper's Ferry, and Hooker was urged to push forward through Loudon to the relief of that place. Dispositions were made for this purpose, but, on the 17th, the reports proving unfounded, the movement was suspended. On this day, however, the Federal cavalry was sent toward Winchester and Harper's Ferry, to make a reconnoissance, and develop the strength and position of the Confederates; and some of the infantry corps slowly followed. Pontoons were ordered to the mouth of the Monocacy. Pleasanton first came up with two brigades of Stuart's cavalry at Aldie, whither they had been sent to observe the movements of Hooker. This force held Pleasanton in check during the day, and then joined Stuart's main force at Middleburg. Next day the fight was renewed, and continued with stubbornness all day; but, finally, Gen. Gregg, who commanded the Federal cavalry, was forced to retire; Pleasanton rested the greater part of his forces next day at Aldie, and on the 20th, made preparations for further advance. On the 31st, he moved forward with his whole cavalry force, which now embraced, in addition to his former force, General Stahl's division of 6,100 sabres, who had been picketing, all winter, from Occoquan to Goose Creek, and whom Mosby, with

his hundred guerrillas, had kept in such a state of alarm that the planks over the chain bridge at Washington were, for a long time, taken up nightly. This body of cavalry, some 15,000 in all, was supported by Banes' division of infantry. Stuart was attacked, and after a stubborn fight, was forced back through Upperville to Ashby's Gap. He lost two pieces of artillery and some sixty prisoners; but he captured several hundred of the enemy, and retained possession of the pass, and thus prevented Pleasanton from observing the movements of the Confederate infantry on the western side of the mountain. The Federal cavalry suffered so severely in this engagement, that Gen. Pleasanton returned next day to Aldie to rest and recruit.

General Lee had, so far, completely veiled his movements and designs from the foe. Even on the 17th of June, General Hooker telegraphed to General Halleck: 'Has it ever suggested itself to you, that this cavalry raid may be a cover to Lee's reinforcing Bragg, or moving troops to the West?' And all the information that General Pleasanton brought back after the fight of the 21st, was the vague report of some negroes, as to the marching of Confederate infantry towards Maryland. But the Confederate commander, anticipating that it would require demonstrations still further to the northward, to draw the Federal army away from the defences of the Capital, (which he had no intention with his inferior force, of attacking in front,) had already pushed forward his advance. Rodes had moved on the 15th, the day after he entered Martinsburg, (and the day of the dispersion of Milroy's force at Winchester,) to Williamsport, and sent Jenkins's brigade of cavalry which had been placed under his orders, to Hagerstown, Jenkins went on to Chambersburg, and returned on the 20th, while Rodes waited for the remainder of the corps. This was being moved up,—Johnson crossing and camping at Sharpsburg on the 18th, and Early crossing and going to Boonsboro' on the 22d.

As Hooker still showed no disposition either to cross the Potomac, or to advance and deliver battle, Lee prepared to move into Maryland with his whole army. Stuart was ordered

to remain to guard the passes of the mountains, to observe the enemy's movements, and to harass and impede him as much as possible, should he attempt to cross the Potomac. When this should be effected, however, he was to cross over too, and place himself on the right of the Confederate army, to cover its movements, and keep its commander informed as to those of the enemy. Ewell's corps was ordered into Pennsylvania; Johnson's and Rodes's divisions were sent towards Chambersburg, while Early was directed to cross the South Mountain toward the Susquehannah, in order to keep Hooker on the east side of the mountain, when he should cross into Maryland, and thus prevent his throwing his army upon the Confederate line of communication through Hagerstown and Williamsport. On the 24th, General Ewell, with Rodes's and Johnson's divisions, had reached Chambersburg, and Early was at Greenwood. On this day, Hill and Longstreet crossed the Potomac at Shepherdstown and Williamsport, and moved towards Hagerstown.

It was now, for the first time, that General Hooker seems to have had any reliable information as to Lee's movements. Learning the position of affairs on the 24th, he prepared to cross the Potomac, and on the morning of the 25th sent over Stahl's cavalry, followed by General Reynolds, with the First, Third, and Eleventh Corps, at Edward's Ferry. On the next day, he crossed over with the Twelfth, Fifth, Second, and Sixth Corps, the cavalry bringing up the rear. Stahl's cavalry was then thrown forward toward Gettysburg, to scour the country, and the Twelfth Corps was advanced toward the passes in the South Mountain leading to Hagerstown, the remainder of the army being concentrated near Frederick. There were 12,000 men at Maryland Heights under General French, and it was proposed that these, having evacuated that post, should unite with the Twelfth Corps, and, crossing the mountain, cut Lee's communications. General Halleck, however, refused to approve this evacuation, and General Hooker in consequence resigned the command of the Army of the Potomac on the 29th. On the morning of the 28th General Meade relieved him, and permission was given to this officer to use French's command as he saw fit.

The Northern historians seem to think, as did Gen. Hooker himself, that a great opportunity was lost by this failure to plant two corps of the Army of the Potomac, upon the Confederate line of communications. But the facts hardly seem to warrant this conclusion. For, on the 25th and 26th, Hill's and Longstreet's corps were moving from Hagerstown to Chambersburg, and had a part of General Hooker's army been pushed forward to Hagerstown, it would most probably have been crushed by bringing down on itself more than two-thirds of the Confederate forces.

On the 27th, the day of Hooker's resignation, Lee, with the corps of Longstreet and Hill, reached Chambersburg. Ewell, with two divisions, reached Carlisle, and Early, having passed through Gettysburg the day before, occupied York. On the 28th, the Confederate army remained quiet. In consequence of an unfortunate circumstance, General Lee was not aware that the Federal army had crossed the Potomac. For Stuart, whom he had ordered to join him in that event, had not been heard from, and the small cavalry force he had with him, was occupied, a part under Jenkins, in Ewell's front toward Harrisburg, and the remainder, under Imboden, (after breaking up the Baltimore and Ohio Railroad, and the Chesapeake and Ohio Canal,) in scouring the country to the west of his line of march. Stuart had pushed down to Fairfax C. H., and finding that the enemy was crossing the river, he crossed below, at Seneca, on the 29th, with the intention of moving around him, and joining General Lee. The advance of the Federal army northward prevented his doing this until the day of the battle of Gettysburg. By this mistake, the Confederate commander was left without the veil behind which he was accustomed to conceal his movements, and without the means of determining the position and purposes of the enemy.

Supposing, therefore, that Hooker had not yet crossed into Maryland, he was preparing to move toward Harrisburg, when he received information, on the night of the 28th, from a scout, that the Federal army was over the river, and that the head of its column had already reached the South Mountain, and thus endangered his communications. This move-

ment necessitated a change of plan for the time, and the change was made with promptness. He ordered the concentration of his army on the eastern side of the mountain, so as to be in position to threaten the Federal line of communications, as well as Baltimore, if his adversary should move to the western side. Hill and Longstreet moved, on the 29th, toward Gettysburg, from Chambersburg, and Ewell was directed to march from Carlisle to the same place. These marches were conducted slowly, the position of the enemy being unknown. General Lee was unable to realize, in the absence of any information from Stuart, that the Federal army was so near him.

Meantime, Gen. Meade, who now commanded the Army of the Potomac, was moving northward in order to cover Baltimore, and to prevent Lee from crossing the Susquehannah. He had assumed command on the morning of the 28th, and spent that day in learning the strength and position of his troops. The infantry of the Federal army consisted at that time of seven corps, the First, (Reynolds's,) Second, (Hancock's,) Third, (Sickles's,) Fifth, (Sykes's,) Sixth, (Sedgwick's,) Eleventh, (Howard's,) Twelfth, (Slocum's.) The cavalry, of three divisions—Gregg's, Buford's, and Kilpatrick's, (late Stahl's,) all under Gen. Pleasanton. The artillery consisted of three hundred field pieces, besides some heavier guns. Total strength, according to General Meade, from 95,000 to 100,000 men. The Confederate army had been diminished some one or two thousand by its casualties at Winchester and Upperville, and by the guards necessarily left to keep open Lee's communications, and now consisted of a total force of nearly 60,000 men and one hundred and twenty-five pieces of artillery. On the 29th, the Federal army moved, and on that night rested, the left at Emmettsburg, and the right at New Windsor. On the next day, the right was advanced to Manchester, but the left, consisting of the First, Eleventh, and Third Corps, under the command of Reynolds, remained stationary. Buford's cavalry occupied Gettysburg, and having reported on the 30th the presence of A. P. Hill on the Cashtown road, Reynolds was ordered to move up to Gettysburg, to hold him in check, and give time for the concentration of the army along the line of

Pipe Creek, which General Meade had selected as the position in which he would receive the shock of battle, if General Lee were disposed to attack.

Thus a great battle was about to be fought, which was to surprise no one so much as the two principal actors in it. Gen. Lee, as already stated, had no design of fighting a general battle. Far from his base, greatly inferior in numbers and artillery, knowing that he could not fill up his ranks if disaster should occur, his purpose contemplated only the occupation for a time of Federal territory in order to relieve Virginia, and such strategic movements as would employ the Union forces in the east in covering their principal cities, or would afford him opportunities of striking blows at detached or unguarded points. He was unaware of the vicinity of the enemy. His latest information was that they held Frederick, and threatened to move in the direction of Hagerstown, and his present concentration of his army at Gettysburg was to check-mate this movement and retain them east of the mountain. This concentration was so admirably ordered that Ewell from Carlisle, Early from York, and Hill from Chambersburg, all reached Gettysburg within a few hours of each other on July 1st. General Meade, on the other hand, instead of carrying out Hooker's plan of moving through Boonsboro' Pass to the western side of the mountain, had pushed his army northward, in order to force Lee from the Susquehannah, and with the intention of not declining battle if his antagonist would attack. So when he found that Ewell had turned back, and before he knew that his own advance was already seriously engaged at Gettysburg, he issued the following order from Taneytown, July 1st: 'From information received, the Commanding General is satisfied that the object of the movement of the army in this direction has been accomplished, viz: the relief of Harrisburg and the prevention of the enemy's intended invasion of Pennsylvania beyond the Susquehannah. It is no longer his intention to assume the offensive until the enemy's movements or position shall render such an operation certain of success. If the enemy assume the offensive, and attack, it is his intention, after holding them in check sufficiently long to withdraw the

trains and other impediments, to withdraw the army from its present position, and form line of battle with the left resting in the neighborhood of Middleburg, and the right at Manchester, the general direction being that of Pipe Creek.'

But the great conflict had already begun. Hill, moving down the Cashtown road, first met Buford's cavalry, which he drove leisurely before him to within a short distance of the town. Reynolds, with the First Corps, was already marching through Gettysburg, and he hurried forward his advance division to Seminary Ridge, to support the cavalry. He fell just as he was getting his troops into position, and the Federal army thus lost one of its bravest and most efficient officers. The movement was carried on, however, by Doubleday, and resulted in a success at first, the Federal troops charging and capturing General Archer and a part of his brigade. Hill soon brought the entire divisions of Pender and Heth, amounting to 12,000 or 14,000 men, into action, and pressed back the Union line. Other forces were added before long to both sides. Howard, with the Eleventh Federal Corps, arrived by mid-day, and took position on the night of the 1st. Howard took command, and now had about 20,000 infantry. Ewell, who was moving from Carlisle, hearing the guns, pushed on, and a little after mid-day reached the vicinity of the field from the north, with Rodes's division, and Early soon followed. These divisions increased the Confederate force to from 22,000 to 24,000 men. Rodes attacked the flank of the enemy's line, and was soon furiously engaged. Hill was pressing the front in a stubborn contest, and the Federal lines were already wavering, when Early reached the field, and by a splendid charge, gave the *coup de grâce* to the Eleventh Corps. It was routed, and the whole Union line gave way and was driven in confusion and with immense loss through and beyond the town. General Howard had taken the precaution to leave one of his divisions in reserve upon the crest of Cemetery Hill, and on this nucleus he rallied his broken troops, and made once more a considerable show of force. This was sufficient to put an end to the contest for that day. Though Early advised an attack on the heights, Ewell and Hill thought it better to wait. Johnson's

and Anderson's divisions, one-third of each of their corps, were not up, the position of the enemy appeared formidable, they knew not what Federal troops besides those they had already met, might be in reserve on the heights, and the great success of the day had not been achieved without severe losses. Hence they determined to rest satisfied with having utterly defeated two corps of the Union army, and captured 5,000 prisoners and several pieces of artillery. It is easy to see, in the light of subsequent events, that a great opportunity was thus lost; but with the facts before them, their action was perhaps not unreasonable. General Lee had ordered Hill to continue to push the enemy, but, upon reaching the field late in the evening, and finding that Hill had ceased pursuit, and had withdrawn his troops, he concluded, on account of the lateness of the hour, to defer any further movement till morning.

Meanwhile, General Meade, after he had issued the order given above, in reference to concentrating on Pipe Creek, was informed of the Confederate attack at Gettysburg, and of the fall of Reynolds, when he sent General Hancock forward to take command of the field, and report as to the practicability of making Gettysburg the battle-ground. Hancock arrived after the fight, and having placed the troops in position, and examined the ground, reported favorably, and advised General Meade to concentrate his whole army there. Indeed, no other course was possible after the events of the day, unless he was willing to yield the palm of victory without further effort. Sickles and Slocum arrived about dark on the field, and were placed in position, and Meade hastened up the remainder of his army during the night, and on the morning of the second.

Whatever were General Lee's previous designs, he now found himself in the presence of the whole Federal army, and actually engaged with it. It was hardly possible to decline the gage of battle. To have retreated without fighting, would have been to throw all the moral results of victory on the side of the enemy. Nor was it an easy matter to retreat from the immediate presence of a superior army, or to maintain himself in a hostile country after having done so. On the other hand, the Army of Northern Virginia was in splendid condition, the

partial combat of the first day had resulted in the demolition of nearly one-fourth of the opposing force, and was a favorable omen of final triumph, and the results hanging upon a decided victory were greater than ever before. The North and its great cities would be open to him, the Federal successes in the West would be neutralized, and consternation and dismay would paralyze the Government. He decided to deliver battle.

During the evening and night, General Lee made use of all the means at his command, (Stuart had not yet rejoined him with the cavalry,) to determine the strength and position of the enemy. The position of Gettysburg, at this day, hardly needs description. It consists of a high, commanding ridge, running from the rear of the town in a southerly direction, and terminating in an abrupt hill, known as Round Top. A cemetery on this ridge, near the town, has given name to the location. At the town, the ridge turns to the east, nearly at right angles to its former course, and afforded in Cap Hill a fine resting point for the Federal right. The Twelfth Corps was posted there, then the First and the Eleventh behind the town. To the left of these, the Fifth, then the Second and Third. The Sixth did not arrive until late next day. These dispositions were made by General Meade as his troops came up during the night of the first, and morning of the second, of July. The Confederate commander brought up during the night Johnson's division, and placed it on the extreme left of Ewell's corps, confronting Slocum; Ewell extended through the town and joined Hill, Anderson continued Hill's line to the right, while beyond him was placed Longstreet, with the divisions of McLaws and Hood. Stuart was ordered up from Carlisle with the cavalry, to the left.

More than half the day passed before General Lee's dispositions were all made. During the forenoon nothing of importance transpired. There was an artillery fight between Johnson on the left, and the forces opposed to him, and it seems that General Meade contemplated an attack on the Confederate lines in that quarter, but was deterred by the adverse opinions of Generals Warren and Slocum. On the Confederate right, however, Longstreet was preparing to attack. Here the Fed-

eral lines had been thrown forward, some half or three-quarters of a mile in advance of the Cemetery ridge, and ran along a less elevated ridge in front of the main one. The Third Corps —General Sickles—held this position. This constituted at the time the Federal left, and here Longstreet, supported by part of Hill's corps, attacked with vigor. The struggle was severe, but though Sickles was supported by Hancock on his right, and by Sykes, with the Fifth Corps, on his left, he was finally routed and driven with great loss from the field. Sykes, after a fierce contest, succeeded in holding on to Round Top, and General Meade, by hurrying up the Sixth Corps, and portions of the First and Twelfth, reformed his line along the crest of the main ridge, and at that point stayed Longstreet's progress. But the whole left of the Federal army had been forced with heavy loss from its position, and the Confederates now held the ground. While this was going on along Longstreet's line, Ewell, on the other wing, was preparing to strike the force in his front. But the attack was made too late to prevent Slocum from sending reinforcements to Sickles, and though a spirited fight was kept up till dark, and Johnson carried a part of the enemy's works, and Early forced back the lines on Cemetery Hill, yet from the divisions not acting in concert, no important advantage was obtained.

Night closed on the contending armies, and though General Lee's success had not been so marked as on the preceding day, it had, nevertheless, been great. One wing of the Federal army had been driven from its position with very heavy loss; his own troops were now in position to assault the main, and last position of the enemy, which, if carried, must bring ruin on the foe, and his own losses, though severe, had not affected the *morale* of the troops. General Meade stated that the Federal losses footed up on this night 20,000 men. Those of the Confederates did not exceed from 10,000 to 12,000. There was every indication of the ultimate success of the latter, notwithstanding the strength of position, and superiority of numbers, and artillery against them. The strongest evidence in corroboration of this statement is the fact, that the Federal commander on this night held a council of war, at which the

question of retreat was seriously discussed. Several members of the council voted for retreat, and General Butterfield testified that General Meade himself expressed decided dissatisfaction when the majority voted in favor of remaining, and risking another day of battle.

General Lee made little or no change in the disposition of his troops for the morrow's fight. Pickett's division, of Longstreet's corps, arrived during the night, thus giving him 4,000 troops that had not heretofore been engaged, and these he determined to make the centre and mass of the column of attack on his right. The Confederate line was necessarily long, a fact that rendered it difficult to obtain a simultaneous attack from the whole army on the enemy's position. A failure to secure this close co-operation on the 2d had prevented Lee's gaining the victory which seemed within his grasp. He made earnest efforts to prevent a recurrence of this on the next day, but, as it proved, with only partial success. As the enemy held Round Top, which afforded a position of great strength for their flank, the point selected for attack by Longstreet was a part of the ridge between Round Top and Cemetery Hill, which constituted the left centre of Meade's line, and was held by Hancock. At the same time, Ewell was directed to push the advantage gained by Johnson on the Federal right flank. Heth's division and two brigades under Wilcox, of Hill's corps, were directed to support Longstreet, and the remainder was to occupy the enemy in their front.

The battle opened on Ewell's line early in the day. The part of Slocum's corps which had been sent to assist Sickles and Sykes the evening before, returned in the night and attacked Johnson in the works he had captured soon in the morning. A fierce contest raged here for several hours. Johnson repulsed the attack upon him, but was unable to make any headway against the enemy. He made two attacks upon their position, but was driven back. While this fight was going on, and it continued till mid-day, all was quiet along the remainder of the line. Longstreet had not yet perfected his dispositions for assault, and the artillery was being massed on Seminary Ridge. It was a beautiful, bright July day, and as

the firing gradually ceased on Johnson's front, all became still. It was hard to realize, as one looked out upon that little valley and town lying so quietly in the sunlight, that this was but the calm before the death-dealing storm, in which a last libation of blood was about to be poured out in a conflict unparalleled in the New World, which would consecrate this obscure spot to undying fame.

Between one and two o'clock all was ready. One hundred and fifteen guns covered Seminary Ridge. Pickett was in position. The order was given, and the artillery opened fire upon the opposite crest. Here General Meade's position being confined, he could bring but seventy or eighty guns into line at once to reply, but having more than two hundred pieces in reserve, as fast as those on the front were disabled, or exhausted of ammunition, they were replaced by others. The fire quickly opened along both lines, at first in regular and measured tread, like the roll of thunder, then gradually deepening and thickening until it became the angry roar of the present hurricane. No interval could be distinguished between the discharges; it was one perpetual, deepening roar. The smoky air seemed alive with bursting projectiles; the earth trembled under the shock.

For nearly two hours this conflict of artillery continued. Then the Federal fire slackened, and General Lee ordered the infantry to attack. Pickett held the middle, his division in double lines, and advanced in splendid order. On his left, was Pettigrew commanding Heth's division; on his right was Wilcox with two brigades. A mile of open valley and slope was to be crossed before reaching the enemy's lines. Steadily and grandly did these Virginians cross the valley of death. Their supports gave way on the right and left. Heth's division wavered and broke under the terrible fire ere they had reached the foot of the slope. So, too, the right was exposed by the failure of the brigades there to keep up. Yet Pickett went on, through the shelling, through the canister, in spite of the oblique fire from right and left, now concentrated on him, through the musketry, up to the enemy's works and over them. The Federal line was broken, the guns captured, and the troops

holding them put to flight. Had his supports, right and left, promptly seconded him, this day would have added another to the list of the disasters of the Army of the Potomac. But Hancock exerted himself with great courage and skill, to stay the proceedings of defeat. The troops on both sides were hurled upon Pickett's flanks, others were brought to fill up the gap in his front. Then a short but terrible struggle, in which all his brigade commanders, and nearly all his regimental commanders, went down, and Pickett, leaving more than half his division dead, wounded, or prisoners, was driven back to the Confederate lines. The brigades on his right moved up, after his repulse, to attack, but did not reach the works before they were forced to retire. Generals Lee and Longstreet met the shattered troops, and by their personal efforts, soon re-formed them. An English officer present thus speaks of them: 'If Longstreet's behavior was admirable, that of General Lee was perfectly sublime. He was engaged in rallying and encouraging the broken troops, and was riding about a little in front of the wood, quite alone—his staff being engaged in a similar manner further to the rear. His face, which is always placid and cheerful, did not show signs of the slightest disappointment, care, or annoyance, and he was addressing to every soldier he met, a few words of encouragement, such as, "All this will come out right in the end; we will talk it over afterwards, but meanwhile all good men must rally. We want all good and true men just now, &c., &c." He spoke to all the wounded men that passed him, and the slightly wounded he exhorted "to bind up their hurts and take up a musket" in this emergency. Very few failed to answer his appeal, and I saw many badly wounded men take off their hats and cheer him.'

Though General Meade had thus successfully repulsed the attack on his lines, he had suffered too much in this day's battle, as well as those of the preceding days, to follow up his advantage. He made a feeble effort in the evening to throw forward his left, to attack in turn, but the movement was not pressed, and at night he occupied the lines he had held all day.

The Confederate army suffered severely in the third day's battle, and after Pickett's failure, General Lee determined not

to risk another assault upon the Federal position. This decision, together with the difficulty of supplying his army in presence of a superior force, from a hostile territory, and the reduction of his ammunition, determined him to retreat. He remained at Gettysburg, however, during the 4th, after having drawn back his left from the east of the town, and placed it in position on the prolongation of Seminary Ridge. Here he took up a position to receive attack, if it should be made, while arranging the withdrawal of his trains, and of his wounded, to the Potomac. On the night of the 4th, he began his movement, and reached Hagerstown on the 6th and 7th.

During the 4th, General Meade showed no disposition to disturb his antagonist. Indeed the Federal army was not in condition to do anything. The losses of the three days amounted to nearly 24,000 men. Those of the Confederates did not exceed 18,000 or 20,000. But while the Federal official reports give their losses at 24,000 killed, wounded, and prisoners, that army was so much demoralized and scattered by the three days' conflict, that the corps commanders, at a council of war held by General Meade on the night of the 4th, reported that the strength of the army then was less than 52,000 men. One of the questions before the council was, whether or not the *Federal army should retreat*, and General Biney testifies that *it was decided to remain only twenty-four hours longer, that more definite information might be obtained in regard to Lee's movements.* Yet Gettysburg has been placed prominently, by Swinton, among his so-called 'decisive battles of the war!' And the Rev. Dr. Jacobs, a Gettysburg professor, whose knowledge of mathematics, if it bear any proportion to the capacity displayed in his little book for falsification, must render him an ornament to that science, thinks this battle the Confederate Waterloo!

On the morning of the 5th, however, General Lee's retreat was discovered, and a show of pursuit made by sending the Sixth Corps (Sedgewick's,) after him. The main body of the army moved toward Frederick, and the troops just mentioned only followed as far as Fairfield, when they returned and joined the remainder of the army.

General Lee having reached Hagerstown, and finding the river too full to cross, took up a position, covering the Potomac from Williamsport to Falling Waters. The Federal army having marched slowly from Frederick, appeared in his front on the 12th. During this day and the next, he waited their attack, and then, the river having become fordable, and a bridge being ready, he crossed into Virginia. In this movement he lost only two disabled guns, and a few prisoners picked up in a dash at his rear guard, on the morning of the 14th, in which affair General Pettigrew fell. On the 12th, General Meade submitted the question of attack to a council of war, and although General French, with 8,000 men, besides large bodies of new troops, had come up, the council almost unanimously decided against it; showing in a conclusive manner the condition of his army.

The Confederate army, after its passage of the Potomac, moved back to Bunker's Hill, where it rested for some days, and then in consequence of the movements of General Meade, who crossed at Berlin, and was marching along the eastern side of the Blue Ridge, it returned by way of Front Royal to the line of the Rappahannock. This retreat was uneventful, save that an effort was made by throwing a strong force through Manassas Gap, to cut off a part of the Confederate army, which attempt was entirely unsuccessful.

The campaign was now virtually over. Both armies lay for some months quietly on the Rappahannock. Later in the summer, General Lee detached Longstreet with one-third of his army, for the purpose of re-inforcing Bragg. General Meade also sent off some troops. In October, when the Federal commander, his army once more filled up by the return of the troops sent away, was about to move forward, General Lee anticipated him, and by a flank movement, forced him back to Centreville and the vicinity of Washington. The Confederate forces were too inferior, in the absence of Longstreet, to admit of a general battle unless under very favorable circumstances. So, after tearing up the railroad, General Lee returned. The last movement of the year was the crossing of the Rapidan, early in December, by Meade, with the intention of attacking

the Confederate flank, but after the troops were disposed, and orders issued for this purpose, the Federal commander concluded to withdraw without risking battle. At this time the Federal army numbered from 60,000 to 70,000; the Confederate army from 30,000 to 33,000.

Such is the outline of the campaign of Gettysburg. The design with which it was undertaken has not been more often misconceived, than have the results that flowed from it been over-stated. We have seen the circumstances which led to its inception; how it became necessary for General Lee, in the early summer, to make a forward movement, or permit his adversary, with strengthened forces and the knowledge derived from two failures, to throw himself once more on either flank, and imitate the campaign actually carried out in the preceding year; how the constantly increasing disparity of force between the combatants rendered inactivity dangerous; how the success of Chancellorsville was to be improved only by an aggressive campaign; with what strategy Hooker was disengaged, first from the Rappahannock, and then from the Potomac; with what purpose the Confederate army was pushed into the very heart of Pennsylvania; how, from the absence of his cavalry, the Confederate leader found himself unexpectedly in the presence of the Union army, and determined to give battle; how the repulse on the third day at Gettysburg neutralized the successes of the first two days, and rendered a withdrawal into Virginia necessary; how the Federal army suffered too severely to follow up its advantage, and was content to guard the Rappahannock while General Lee detached one-third of his force to stay the tide of misfortune in the West. The results of the campaign were indecisive. Probably no one of Mr. Swinton's 'decisive battles' is less entitled to this appellation than Gettysburg. The exaggerated ideas in regard to its effects, are doubtless due to the consternation and alarm excited by the march of Lee into Pennsylvania. This gave rise to excessive apprehensions in the North, and excessive expectations in the South. Those who one day thought that Philadelphia, New York, and even Boston, were within the invader's grasp, easily imagined on the next, that the repulse at Gettysburg was a

crushing blow to the fortunes of the Confederacy. The fact is, that neither was true. The failure at Gettysburg inflicted severe loss on the Southern army, cut short Lee's summer campaign in Pennsylvania, and relieved the North of its fears for the safety of the great cities. On the other hand, the balance of gain rested with the Confederates. The damage inflicted on the Union army paralyzed it for the remainder of the year, enabled Lee to hold in security, with but a part of his force, the line of the Rapidan, and prevented the contemplated movement against Richmond. The march northward relieved Virginia of the presence of hostile troops while the harvest was being gathered, lifted the yoke for a time from her people, and replenished the scanty Confederate commissariat. The relative strength and condition of the two armies on the 1st of August was not widely different from what it had been on the 1st of June, but the campaign against Richmond, which Hooker was preparing to inaugurate when the movement began, was no longer possible. If Lee had remained stationary on the Rappahannock, equal advantages could not have been secured. Besides the difficulties growing out of inaction, and the meagre and precarious condition of his supplies, a forward movement of the Federals would have turned his position, and forced him to give battle in the open field, or fall back on some inner line. Even had Chancellorsville been repeated, the situation of affairs, after another repulse of Hooker, would have been much as it actually was after Lee's return to the Rappahannock, while in the meantime a large portion of the most productive part of Virginia would have remained in the enemy's hands, who would have been free to prosecute, without interruption, his plans elsewhere.

But though the results of Gettysburg were thus indecisive, it might have been far otherwise. Had General Lee succeeded in his bold dash against the Federal army, and driven it with the loss of its immense artillery from Seminary Ridge, the advantage thus gained would have been most important to the Confederacy. It would have opened Pennsylvania to him for the time, would possibly have given him Baltimore, would have caused the recall of General Grant, and the abandonment of

the successful Union campaign in the Southwest, and might possibly, though not probably, have strengthened the peace party in the North, sufficiently to have seriously embarassed the Lincoln Administration. It was the prospect of these gains that reconciled General Lee to delivering battle when he found it imminent; these were the prizes which trembled in the balance for three days, and which would have been his, had he at any time during that period been able to secure a combined and simultaneous attack on the Federal position.

On the contrary, had Gettysburg been the Waterloo of the Rev. Dr. Jacobs, General Meade, at the head of a victorious army, his losses more than repaired by the troops about Washington, and by the new lines coming in, with full command of the sea and the rivers, with an abundance of supplies and material at hand, would have crushed or pushed aside the remains of the Confederate army which the South had no power to recruit, and penetrating to the heart of Virginia, have ended the war by the capture of the Southern capital.

But the fates had not so decreed. The mighty contest which the Army of Northern Virginia had maintained for three years with insufficient men and means, against the power of the North, was to have another and a closing scene of unsurpassed grandeur. Both parties were to rest after the exhausting struggle of Gettysburg, and then to join in the final conflict. The great man whose talents and ability had so far borne up the Confederacy in the east, was to give a still loftier manifestation of his genius, and in the tremendous campaign of 1864–5, to leave to the world an example of military skill which, all things considered, is unsurpassed in the annals of war.

ART. IX.—1. *Familiar Lectures on Scientific Subjects.* By Sir John F. W. Herschel, Bart., K. H.; M. A.; D. C. L.; F. R. S. I.; &c., &c. Lecture II. The Sun. New York: George Routledge & Sons. 1869.

2. *Popular Astronomy.* By François Arago, Perpetual Secretary of the Academy of Sciences. In two volumes. 1858.

Of all the physical sciences—and a glorious sisterhood they are—astronomy is, beyond question, the most ennobling and sublime; expanding the mind, and filling the imagination, with grand conceptions of the infinite power, and wisdom, and goodness, and glory of God. It is, then, most worthy of the consideration and study of beings made in the image of the great Architect of the universe.

We all think too much of the houses we live in. These, whether mean or magnificent, occupy our thoughts and feelings far too much. The astronomer is, indeed, the only person who never errs in this respect; for he, however poor and penniless, lives in a house which can never be sufficiently admired; in the house, namely, that God himself has built and beautified. In other words, he lives in this 'our Father's house' of the universe, in which there are truly 'many mansions'; mansions whose foundations underlie all worlds, and whose pinnacles glitter in all the stars of heaven. The magnificent mansions of this house—the admiration of men, and of angels, and of gods—are the abodes of the blessed, from the ever-blessed God himself down to the poorest of his children.

But does not every man, as well as the astronomer, live in this house? By no means. On the contrary, most men merely *exist* in this great temple of the universe, pretty much as stocks, or stones, or stars, or stumps, exist therein, with little sense of its infinite magnificence or beauty, or of the infinite greatness and glory of its divine Author. They *exist;* they do not *live.* If, indeed, with mind, heart, soul, and imagination, they were

only alive to the unutterable wonders of the world around us, they would learn to walk humbly before their God, instead of strutting, as many now do, and spreading the peacock magnificence of their pride, for the astonishment of the poor earthworms at their feet. Shall we, then, like the devout astronomer, whom Josephus calls 'the son of God', live and worship in His house; or shall we, like the inferior animals, merely gaze, with unmeaning vacant stare, on 'this majestic fabric of the world'? Shall we, like the dumb creatures around us, be satisfied to browse upon the earth; or shall we, like veritable 'sons of God', enter into 'our Father's house', and there feast on the food of angels? The latter is, no doubt, our hope, as it is our high destiny. But if we would really enter into the august temple of the universe, or house of God; the only vestibule for us to gain admission at, is the sun of our system, or, as the poet calls it, 'our chief star.' For it is only from a knowledge of this fixed star, or sun, and his attendant worlds, that we can rise to a rational contemplation of the other fixed stars and systems of infinite space. Our solar system is, then, the antechamber to the universe.

Our present subject embraces, not the laws, nor the mechanism, of the material universe, but only a few of its great and astounding facts. One of these is the sun. The sun, though but a spark of the divine Omnipotence, is of a magnitude and glory far too great to be grasped by our minds, or realized by our imaginations. Two elements are necessary to determine the magnitude of the sun, namely, his apparent diameter, and his real distance from the earth. His apparent diameter is easily measured. But what is his distance from the earth? Until this question be answered, it will be impossible to determine the size of the sun. As the sun and moon appear to be of nearly the same size; so, if we omit the element of distance, we should conclude, as many of the ancients did, that they are really equal, or nearly equal, in point of magnitude. But this were an immense error. If, indeed, the sun were as near to us as the moon, his disc would be 170,000 times as great as that of the moon; which would show his magnitude to be equal to 70 millions of moons. If, on the contrary, he were removed to

the distance of some of the stars of the sixth or eighth magnitude, he would appear as diminutive as they do; or if removed to the distance of some of the brightest stars, he would become wholly invisible to the naked eye. It is, then, his distance, which makes him appear as small as the moon; though he is, in reality, 70,000,000 times as great as that luminary. It is, on the other hand, his nearness, or proximity to us, which makes him, though intrinsically smaller than many of the fixed stars, shine with a splendor 20,000 millions of times as great as the most brilliant of them all, or Sirius himself.

What, then, is the distance of the sun from our planet? And what, judging from his apparent diameter at that distance, must be his real size? Little knowledge had the ancients respecting the distance or the size of the sun. Aristarchus, a celebrated Greek astronomer, first endeavored to determine the relative distances of the sun and moon from the earth. His calculations led him to conclude, that the sun's distance is nineteen times as great, as that of the moon. Instead of nineteen times, however, it is, as we now know, nearly four hundred times the distance of the moon from the earth.

Ptolemy and his contemporaries, and after him Copernicus and Tycho Brahé, (as late as the seventeenth century,) supposed that the distance of the sun is equal to only 1,200 semi-diameters of the earth; whereas, in reality, it is about 24,000 such semi-diameters, or units of measure. Kepler nearly tripled this distance, making it 3,500 semi-diameters of the earth, but his opinion was not supported by demonstrative reasoning. Riccioli arbitrarily doubled the distance assigned by Kepler, while Hevelius increased it by one-half only.

Edmund Halley, as late as 1716, insists that the sun's parallax must be less than 15″; for, if it were not, 'the moon would be larger than Mercury'; a result, or fact, inconsistent with 'the harmony of the universe.' His fancy, guided by 'the harmony of the universe', finally settled on 12″ 5 as the parallax of the sun; which makes the solar distance 16,500 semi-diameters of the earth; or a little more than two-thirds of its actual value.

But with Edmund Halley, the great friend and disciple of Newton, the age of calculations based on insufficient data, or

of crude conjecture, passed away. Astronomers left their closets, and, laying aside all the little, contracted, discordant notions, which they had too fondly labelled, 'the harmony of the universe'; they went forth to study that awful harmony as it is exhibited in the great world of God, not as it is seen and distorted in the little world of man. Hence, feeling their own ignorance and becoming as little children, they were prepared, according to 'the Master of Wisdom', to enter into 'the kingdom of man, which is founded in the sciences.' If, indeed, we may not make bold to say, that they were prepared to enter into the outer 'kingdom of heaven' itself, which is founded in astronomy.

'The voyage of Richer', says M. Arago, 'led to less hypothetical conclusions.' That is to say, the voyage of Richer out of himself, with a view to observe the great world of God, led to a new era in the science of the sun. For, comparing his observations with others simultaneously made in Europe by Picard and Rœmer, he concluded that the solar parallax is 9″ 5; which implies a distance from the earth equal to 21,712 terrestrial semi-diameters; the nearest approximation to the true distance till then made by man. Others, following the example of Richer, travelled out of themselves, and put themselves, by careful observations, in communication with the mind of God as embodied in his works. Cassini, Rœmer, Sédileau, Flamsteed, Maraldi, Pound, Bradley, Lacaille, and others, all erected their batteries of observation, and laid siege to the sun's parallax. But no one ever came as near to its true value, or to the actual distance of the sun thence resulting, as did Richer, till the year 1761, when the transit of Venus across the sun's disc occurred. 'The observations made of this phenomenon,' says Arago, 'at the Cape of Good Hope, in Lapland, and at Tobolsk, in Siberia, gave 9″ as the angle subtended by the earth's radius seen from the sun at mean distance'; or, in other words, as the sun's parallax. Thus it was, that the transit of Venus across the sun's disc, in 1761, helped the astronomer to a little closer approximation to his distance from the earth, than was made by Richer himself.

Then followed the transit of 1769. All the nations of the earth were, at once, on the *qui vive*, resolved to find the sun's parallax, and calculate his distance from the earth. The Abbé Chappe of the Academy of Sciences went to California, where, having executed the observations which formed the object of his voyage, he died in the service of science. Cook, and the astronomer Green, repaired to Otaheite in the Southern Ocean; while Dymond and Wales took up their station in North America, near Hudson's Bay. Call went to Madras, in the Peninsula of India, to observe the phenomenon. The Academy of St. Petersburg sent astronomers, for the same purpose, to various parts of Russian Lapland. Father Hell, the German astronomer, went, in the name of the King of Denmark, to observe the transit at Wardhus; and Planmann, the Swede, observed it at Kanjaneburg, in Finland.

The observations made at any two distant stations, sufficed to determine the parallax of the sun; and by comparing the results deduced from various pairs of observations, their agreement verified the accuracy of the method employed. The following results were obtained by the various combinations:

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| Otaheite and Wardhus | 8″. 71 |
| Otaheite and Kola | 8″. 55 |
| Otaheite and Kanjaneburg | 8″. 39 |
| Otaheite and Hudson's Bay | 8″. 50 |
| Otaheite and Paris | 8″. 78 |
| California and Wardhus | 8″. 62 |
| California and Kola | 8″. 39 |

From observations made at the north of the equator, compared with those made at Otaheite, the solar parallax was found to amount to 8″. 59; which differs very little from its value as deduced by Lalande. Encke, by a still more thorough investigation, found the solar parallax to be 8″. 58; differing from the result obtained by Lalande only the one hundredth part of a second. Having ascertained the parallax of the sun, or the angle which the radius of the earth, seen perpendicularly, would subtend at the sun, it is easy to demonstrate that his distance from our planet is 95,023,000 of miles. The

difficulty of the problem is not at all enhanced, as most men are apt to imagine, by the circumstance, that the distance in question is so immense. For, if a sufficient number of its parts be known, it is just as easy to determine the side of a large triangle as of a small one; whether it reach from the earth to the moon, from the earth to the sun, or only from the observer to some inaccessible object on the earth's surface.

The law of gravity which, under God, is the source of all the order and harmony of the material universe, is, at the same time, the cause of innumerable perturbations in the motions of the heavenly bodies. The sun, for example, produces various perturbations in the motions of the moon. These perturbations depend, it is evident, on the distance of the sun from the earth; for his force, as every one knows, varies inversely as the square of the distance at which he acts. Hence, if his distance were increased, these perturbations would be diminished, and *vice versa*. Laplace, availing himself of this connection between the distance of the disturbing force and its effects, deduced the distance of the sun from the perturbations it is observed to produce in the motions of the moon. By this method, so different from the one above noticed, he found the solar parallax to be 8″. 61; which is, within two hundredths of a second, the same as that deduced from the transit of Venus. How wonderful the agreement! And how conclusive the proof it affords in favor of the theory, or law, of universal gravitation! But, above all, how sublime the act of ratiocination, by which the sun's distance is deduced from his effects on the moon's motion! Sublime, however, as this act was, it is eclipsed by that of Leverier and Adams, each of whom, by reasoning from the perturbations in the motion of Uranus, detected the existence of the unseen planet Neptune, and pointed to his place in the heavens; a discovery at once confirmed by more telescopes than one.

The sun's distance once found, it is easy to determine his size. The earth, whose diameter is nearly 8,000 miles long, is an immense globe. But it is, nevertheless, utterly insignificant by the side of the sun; whose diameter is 888,000 miles in length, or more than 100 times that of the earth. But as their

volumes are to each other as the cubes of their diameters, it follows that it would take nearly 1,400,000 globes as large as the earth to make one as great as the sun. The following illustration will, perhaps, help our minds to some poor conception of its wonderful magnitude. The moon is, in round numbers, 240,000 miles from the earth, around which it revolves in a nearly circular orbit. Now, if the sun were a hollow globe, with its centre at the centre of the earth, its surface would extend, in all directions, more than 200,000 miles beyond the orbit of the moon. Hence the moon would revolve within the body of the sun,—a little more than half way from its centre to its surface. Such is the stupendous mass which, by its attraction, binds all the planets to his bosom, and keeps them within the region of light, and life, and joy.

From the beginning of the world down to the year 1609 of our era, it was the almost universal opinion, that the brightness of the sun's disc is uniform. But the year 1609 is forever memorable in the history of astronomy, as that in which the telescope was invented, and turned toward the heavens. Among the many wonders it soon revealed, were the huge spots on the body of the sun. Galileo, the first astronomer to use the telescope, speaks with astonishment of the rapidity with which the solar spots spring into existence, change their forms, and disappear. Some spots appear and disappear very rapidly, while others last for weeks and even months. No spot could be seen at the distance of the sun, unless it were large enough to cover an area of 166,000 square miles. Hence, every visible spot must be larger than 166,000 square miles. Mayer observed one spot, whose area was 1,500,000,000 of square miles, or thirty times the surface of the earth.

Solar Science is the creation of the last two centuries. The ancients knew nothing about the sun, except what is seen by the naked eye, and known to all men. They wasted their energies in vain speculations, or fruitless conjectures, respecting such questions as these: 'Is the sun a *pure* fire, or a *gross* fire? Is it a *self-maintaining* fire, or a fire *continually fed from without?* Is it an *eternal fire*, or a *fire liable to be extinguished?*' But after the telescope was invented, and the sun's

spots were seen, men began to ask practical questions respecting the physical constitution of that great luminary. They instituted the inquiries—what are its spots? How are they produced, and what do they teach? These questions gave rise, at first, to hypotheses merely, or conjectures. But all these, in time, were followed by solid discoveries, by new and wonderful facts.

When the sun's spots, for example, were seen to rise on its eastern limit, pass along an equatorial zone, or belt, some sixty degrees in width, and, finally, disappear at its western limit; this suggested the idea of the revolution of the sun on its own axis. This wonderful fact was established in 1611; only two years after the invention of the telescope. By repeated observations and calculations, it was found, that the sun makes one revolution in 25 days, 7 hours, and 48 minutes; each point of his vast equator revolving at the rate of more than 100,000 miles per day. How grand, how wonderful, this new fact, which, until within the last two centuries and a half, had never entered into the imagination of man!

But what are those spots on the sun's disc? What, for example, is that intensely black, irregularly-shaped patch, edged with a broad penumbral fringe, which moves, from east to west, along the brightness of the general surface of the sun? Is it, as La Hire supposed, an opaque body floating in the fluid mass of the sun? No. Is it, then, according to the notion of Fontenelle, an opening in the gaseous envelope of the sun, through which his dark, solid nucleus, or body, is seen? No. Shall we conclude, then, with the celebrated English astronomer, Gascoigne, that a large number of almost transparent bodies revolve around the sun in circles of different diameters, and that when two or more of these bodies get in the same line between the eye and the sun, they intercept its light, and produce a spot on its surface? By no means. So wild a supposition, is hardly worthy of so great an astronomer. Is this spot, then, as Derham suggested, the effect of a volcanic eruption? If so, why did it appear only the other day, for the first time, and why will it so soon disappear, never more to be seen? Are the craters of volcanoes, so evanescent in their existence, or so changeable

in their sizes and forms? Surely not. Finally, is this great spot, as Maupertius said, a vast collection of scum floating in the incandescent fluid of the sun's surface, which will soon be consumed by the fierceness of his fire? This hypothesis, has, like all the preceding ones, been refuted by the discovery or consideration of facts.

What, then, we repeat, are these dark spots on the sun? Have we nothing, on this subject, but the vague explanations above mentioned, which appear like dark spots on the body of the science of astronomy? The theorists, by whom the above explanations were broached, did not pay attention to all the facts presented by the surface of the sun. They only asked themselves, for example, why and how do black spots appear on the surface of the sun? They did not consider the *faculæ*, or white spots, on the sun's disc; though its motley surface is made up of transcendently white, as well as of black, spots. These white spots, if they had been sufficiently considered, would have revealed the emptiness of the above hypotheses, or suppositions. When all the details of the phenomena of the sun's surface were taken into account, including, especially, its white spots, a better era in solar science began to dawn. More complete, and more satisfactory, views, began to appear, and form themselves like white spots on the science of astronomy.

Alexander Wilson, a Scotch astronomer, took the lead in this more comprehensive and profound study of the sun's surface. In 1774, he proved, by the aid of incontestible observations, that the spots are excavations, in the bottom of which are situated their black nuclei. Hence, he regarded the sun as composed of two substances quite different from each other. The interior mass of the sun, said he, is a solid and opaque body; which mass is covered with a slight stratum of an inflamed substance, from which it derives its illuminating and heating properties. An elastic fluid is elaborated in the obscure mass of the sun, ascends through the luminous matter, and, re moving it aside in every direction, allows us to see a portion of the obscure globe within. The slopes of the excavations constitute the penumbra, or fringe, to the darker portions of the spot. But this ingenious explanation, only accounts for the appearance

of the black spots. It no sooner took hold of the white spots, or *faculæ*, than its insufficiency was perceived. If, for example, this were the true explanation, then the excavation, or the penumbra, ought to become darker and darker, as it approaches the interior mass of the sun. On the contrary, the penumbra, or fringe, is brighter near the nucleus than anywhere else.

Embarrassed by this, and by other difficulties, the author declared, that he was sometimes driven to 'harbor the idea, that the illuminating solar envelope resembled in consistency a dense fog.' In spite of his theory, he acknowledged, with great candor, 'that he knew absolutely nothing respecting the nature of the *faculæ*, or white spots of the sun.' This confession of ignorance, this abnegation of self, was the first great step toward a true knowledge of the physical constitution of the sun. So true is the saying of Lord Bacon, that the kingdom of man, which is founded in the sciences, can be entered no otherwise than as we enter into the kingdom of heaven; that is, by becoming as little children. Of all the obstacles to the progress of knowledge, by far the greatest is the accursed conceit of knowledge; men remaining blind to the great facts of science, just because they fall so fondly in love with their own fancies.

The researches of Wilson, were followed by those of Bode, and Michell, and Shrœter, and Herschel. 'When any agitation whatever,' says Bode, the astronomer of Berlin, 'occasions a rent in the luminous atmosphere (of the sun), we perceive the solid nucleus of the body, which always appears very obscure relatively to the bright light which surrounds it, but more or less sombre, according as the portion thus discovered is a vast sea (in the sun), a narrow valley, or a continuous and sandy plain.' This view was published in 1776. In 1783, Michell said: 'The excessive and universal brightness of the sun's surface arises probably from an atmosphere which is luminous in all its parts, and endued also with a certain degree of transparency.' Shrœter, in 1789, published a work, in which he says: 'It cannot be doubted that the sun has an atmosphere in which operates strong condensations, which appear to us like dark clouds.'

Descending along the stream of time, we arrive at the memoir published by Sir William Herschel, in 1795, in which the great astronomer expresses the conviction, that the substance by means of which the sun shines, cannot be any other than a liquid—than an elastic fluid. 'Without that', says he, the cavities of the spots, and the undulations of the mottled surface, would be soon filled up.' Is the substance, then, to which the sun owes his effulgence analagous to our clouds, and does it float in the transparent atmosphere of the body? Such is, according to Arago, the inference resulting from the opinion of Sir William Herschel.

But, however plausible the opinion of Herschel, it rested in conjecture merely, and not on established fact. The great fact, that we do not see the body of the sun, but only its external gaseous envelope, or photosphere, still remained to be established. The proof of this fact is one of the brilliant achievements of our own time; it is of such a nature as to be quite satisfactory to the minds of astronomers. We shall, then, state this proof, or evidence, in the fewest and plainest possible words.

There are two kinds of light: *ordinary light*, and *polarized light*. A ray of ordinary light enjoys the same properties on all the parts of the contour. It is otherwise with respect to polarized light. The different sides of its rays have different properties. These discordancies manifest themselves in a multitude of phenomena, by means of which we may easily distinguish polarized from ordinary light. 'The polariscope', says Arago, 'furnishes a very simple process, and one of very palpable evidence, for distinguishing natural light from polarized light.'

'Polarized light', he says again, 'has enriched science with various processes of investigation, of which astronomers have not failed to take advantage.' Astronomers have, indeed, taken advantage of one of these 'various processes of investigation' to detect and demonstrate the nature of the substance, which, at the distance of 95,000,000 of miles, shines upon our planet, and symbolizes the omnipresence of the Father of Lights. It would be out of place, in this paper, to go into the

tedious details of the process, by which the astronomer demonstrates the great fact in question. Suffice it to say, in general terms, that armed with the polariscope, he looks into the light of the sun, and sees that, according to a law of nature, it must proceed, not from a solid or fluid body, but from a gaseous substance. 'This experiment', says Arago, 'removes from the domain of simple hypothesis what we have said respecting the gaseous nature of the solar photosphere.' It is thus established, at last, that the inflamed substance which traces out the contour of the sun in the heavens, is gaseous.

The dark spots of the sun, as they are called, are made to appear so by contrast only. If, for example, you take an argand lamp, and hold it between the eye and the sun, its light will be seen projected on the sun in a dark spot. Thus, however bright the argand lamp, it looks like a dark spot on the sun's surface; because that surface is so much brighter than itself. In like manner, the dark spots of the sun, though insufferably bright to the eye, appear dark, or even black, from their contrast with the adjacent portions of the sun's surface. Or, in other words, their brightness is eclipsed, and turned into apparent darkness, by the transcendent and overpowering brightness of the surrounding surface of the sun. The simple truth is, then, that all the parts of the sun's surface are exceedingly bright; but some are so much brighter than others, as to make the less luminous portions appear dark by contrast.

'Another stride in advance', says a recent English Review, 'has to be recorded in Solar Physics—perhaps at this moment the most progressive department in science. Though much more detailed knowledge probably remains to be reached by prolonged observation, we may say broadly that the spectroscope has now revealed the nature of solar prominences—the red flames of eclipses—just as two years ago the same beautiful method solved the sun-spot problem, and not long before settled the vexed question of the nebulæ. Solar science belongs especially to our time.'

Three English Astronomers—Mr. De la Rue, Mr. Balfour Stewart, and Loewy—having made diligent solar observations gave a more satisfactory account of the spots, or cavities, in the

sun's surface, than any that had been previously advanced. 'Their theory', says the Review just quoted, 'was based on the incontestable fact, that while the bright photosphere envelops the sun, the photosphere itself is in its turn surrounded by an absorbent atmosphere; and they hold that a spot [or cavity] is produced by a down-rush of this atmosphere into the region of the photosphere. Partly by displacing, and partly by obscuring the photosphere, the whirlwind of atmosphere, according to this view, darkens the cavity of the spot. Much evidence was accumulated in favor of the English theory, but it was not conclusively established until the year 1860, when Mr. Lockyer applied to the investigation the same method of spectrum analysis, which enabled Mr. Huggins a short time before to ascertain the constitution of the nebulæ.'

The sun, then, wears more coats than one. Besides the two just mentioned, he wears, under his glorious outer garment of the photosphere, a vestment of very different material. That is to say, 'an opaque atmosphere', which, in spite of the popular opinion that wraps his body in flames of fire, keeps him cool and comfortable.

Let us, in conclusion, briefly glance at the progress of ideas respecting the sun. Anaximander, born 610 years B. C., supposed that the sun was 'a chariot filled with fire, which escapes through a circular aperture.' Anaxagoras, the teacher of Pericles, born 500 years B. C., regarded the sun, if we may believe Plutarch, 'as an inflamed stone', or, according to Diogenes Lærtius, 'as a hot iron.' Zeno, the founder of the great sect of the Stoics, believed the sun to be 'a fire larger than the earth.' And Lucretius, the brilliant poetizer of the atomic cosmogony, or the material philosophy of Epicurus, regarded the sun, moon, and stars, as no larger than they appear to man. Hence, as sun and moon have the same apparent size to us, they are equal in their real dimensions. The fact is, however, that as the sun is more than 400 times farther from us than is the moon; so his real diameter is more than 400 times greater than that of the moon. Hence, as we have seen, it would take no less than 70,000,000 of moons to make one globe as large as the sun. If, indeed, we should follow Lucre-

tius, we should regard the moon as little, if any, larger than a pewter plate; though, in fact, her disc is 2,160 miles from side to side. The philosopher, then, saw as a child, and he spoke as a child. But now all such childish notions have passed away; and the great facts of astronomy stand in their places. The great facts of astronomy! One of these is, that the sun, instead of being 'a chariot filled with fire', which blazes through a round hole in one of its sides, is a globe of light, and power, and beauty, 1,400,000 times as great as the earth.

What shall we say of the sun then? Was it merely made to illuminate the earth? Or is it, on the contrary, the seat of inhabitants, many times more glorious than we poor wrangling bipeds of the earth? 'If I was asked', says M. Arago, 'is the sun inhabited, I should reply, that I knew nothing about the matter. But if any one ask me, if the sun *can* be inhabited' .... 'I do not hesitate to reply in the affirmative. The existence in the sun of a central obscure nucleus, enveloped in an opaque atmosphere, far beyond which the luminous atmosphere exists, is by no means opposed, in effect, to such a conception. Herschel thought that the sun is inhabited.' Such has been the progress of astronomy. The sun, once regarded by the illustrious Greek, Anaxagoras, as 'an inflamed stone', or 'a hot iron', is now known to be a world nearly one-and-a-half millions of times larger than the earth, and is believed, by the greatest of astronomers, to be inhabited by rational and immortal beings.

There is, in relation to this last opinion, a curious anecdote, which, says M. Arago, is 'worthy of figuring in the history of science.' He borrows it from an article on astronomy, which was written by Sir David Brewster, and which appeared in the *Edinburgh Encyclopædia*. The story is this: Dr. Elliot maintained, as early as 1787, that the sun might be inhabited. When the Doctor was brought before the Old Bailey, for having occasioned the death of Miss Boydell, his friends, Dr. Simmons among others, defended him on the ground that he was mad, and produced the writings, in which he advocated the above opinion, as proof of his insanity. In about eight years afterward, however, the same opinion was promulgated,

as his own, by Sir William Herschel. The grand 'conception of the madman', is, at the present day, 'generally adopted', as M. Arago truly asserts. Can we believe, indeed, that the sun, with all its wonderful capacities, was merely made for our little world? We barely suggest, we do not mean to discuss, the profoundly interesting question with respect to 'The Plurality of Worlds;' a question which has called forth an elaborate work from the elegant pen of Fontenelle, and which, only a few years ago, was warmly debated by men of science in Great Britain. The conceit of those who fancy, that the great and 'all-beholding sun', as well as the other stars, were made for man alone, is thus happily hit off by Pope:

> Proud man exclaims, 'See all things for my use!'
> 'See man for mine', replies a pampered goose.
> And just as short of reason he must fall,
> Who thinks all made for one, not one for all!

The goose is, we think, at least, as near right as the man; for there is certainly as great a disproportion between man and the universe, as there is between goose and man.

We have, indeed, long entertained the impression that the sun is a great electro-magnetic machine, which generates the heat and the light so abundantly enjoyed by the planets of our system. Having entertained this impression for more than twenty years, we have watched every development of science which could possibly have any bearing on the subject. Is it not wonderful indeed that, at the distance of 95,000,000 of miles from the sun, we should be able to see what takes place on its surface. Yet we do see this; and it was only the other day, that one of the most wonderful, and, at the same time, one of the most significant, facts, ever vouchsafed to mortal vision, was distinctly seen in the sun. 'There occurred on the 1st of September, 1859', says Sir John Herschel, 'an appearance in the sun which may be considered an epoch, if not in the sun's history, at least in our knowledge of it. On that day great spots were exhibited; and two observers, far apart and unknown to each other, were viewing them with powerful telescopes; when suddenly, at the same moment of time, both saw a strikingly brilliant appearance, like a cloud of light far brighter than the general surface of the sun, break out in the immediate neighborhood of one of the spots, and sweep *across*

and *beside* it. It occupied about five minutes in its passage, and in that time travelled over a space on the sun's surface, which could not be estimated at less than 35,000 miles.' Now, was not this a wonderful phenomenon in itself? Only think of a spot which, in order to be seen at all, must have covered nearly two hundred thousand square miles, flying across the sun with the speed of 7,000 miles per minute! But, however wonderful in itself, this great fact is still more so in its apparent effects, as described by those who witnessed them, as well as by Sir John Herschel.

'A magnetic storm', says Herschel, 'was in progress at the time. From the 28th of August to the 4th of September, many indications showed the earth to have been in a perfect convulsion of electro-magnetism. When one of the observers I have mentioned had registered his observations, he bethought himself of sending to Kew, where there are self-registering magnetic instruments at work, recording by photography at every instant of the twenty-four hours the positions of three magnetic needles differently arranged. On examining the record for that day, it was found that at that very moment of time (as if the influence had arrived with the light,) all three had made a strongly-marked jerk from their former positions. By degrees, accounts began to pour in of great auroras seen on the nights of those days; not only in these latitudes, but at Rome, in the West Indies, or the tropics within 18° of the equator, (where they hardly ever appear,) nay, what is still more striking, in South America and Australia; where, at Melbourne, on the night of the 2d of September, the greatest aurora ever seen there made its appearance. These auroras were accompanied with unusually great electro-magnetic disturbances in every part of the world. In many places the telegraph wires struck work. They had too many private messages of their own to convey. At Washington and Philadelphia, in America, the telegraph signal-men received severe electric shocks. At a station in Norway, the telegraphic apparatus was set fire to; and at Boston, in North America, a flame of fire followed the pen of Burns's electric telegraph, which, as my hearers perhaps know, writes down the message upon chemically-prepared paper.'

# ALCYONÉ.*

'Nay—leave me not:' she cried; and her bared arms,
From which the saffron robe fell flowing back
As from snow-white Naxos,—tightened close
Their clasp about her husband.
—'I am yet
So new a dweller in thy palace walls,
That still I crave a sense of welcome nigh,
To banish strangeness; and I only feel
My title to thy home's sweet sovereignties,
While thou art by, with thine assuring love
To prove it good. Oft-times I deem myself,
Albeit unqueenly-wise, an alien, when
I cannot turn to thee with questioning looks,
Appealing looks that read their answer writ
Clear and large-lettered on thine open brow.
'Tis only then I seem to miss the breath
That atmosphered my childhood,—only then
Do I remember that not one of all
The tender playmates of my native Isle,—
My rock-bound Strongylé,—not one dear face
Is here to smile me back the fond, old time—
Not one familiar voice that can recall
My happy, happy by-gone! If thou rid'st
But to the chase, I droop till thy return.
My maidens fail to cheer me, though they bring
Cithern and lute: for all the pent-up past,
For which thy crowding presence leaves no verge,—
Beats strong against my heart, as beats the surf
Against my father's brazen battlements.
Yet at the note that heralds thy return,
All memories lapse away;—and then I miss
No love beside, Beloved, having thine.'

* Cey̆x, King of a province in Thessaly, was drowned, on his way to consult the oracle of Apollo at Claros. His wife, Alcyone, having premonition, in a dream, of his fate, and finding his dead body on the sands, in her despair, threw herself into the sea. Whereupon, the gods, to reward their mutual love, changed them into halcyons.

'To me, thy moaning, my Alcyoné,
Is sad as taboring of Cyprian doves,
When from her flowery Isle, their goddess strays.
Love's sweet exaggeration overstates
Thy case and makes it piteous so:—Behold—'
And freeing from her clasp his fondling arm,
King Ceyx pointed to the land-locked bay,
Where rocked his waiting vessel.
'Not more smooth
Thy molten mirror than yon crystal sea!
Confess thy fears' forecastings, little one,—
Have, like a goad behind thy pleadings, pricked
Keener than love doth,—hurrying on thy speech,
And filling it with honied artifice!
Well!—let the bee snatch at the Hyblan lure,
And yet escape it!'—then he, stooping, sealed
With fast-shut kiss, the rosy-answering mouth.

'Yet be content: Dismiss thy pale alarms,
Nor listen to thy pillow's scared unrest,
That drones of danger. When thou art alone
Among the courtiers, steel thy spirit, my queen,
With self-assertion of thy dignities
Of holy wifehood,—sure that in my heart,
Thy royal realm,—love busies all the hours,
Building a palace fit to be thy home.

'Yon sea-bird will up-bear me on swift wings,
To sacred Claros: there, my doubts all solved
Before the oracle,—my vexing quests
Forever quieted,—how will I fly
Back to thine arms!—and love, still gathering strength,
And over-topping every obstacle,
Shall break upon thy breast, and ripple up
In creamy kisses, stranded on thy lips!

'What!—suppliant still with those sad-lidded eyes,
Whose heaven is cloud-wracked as the misty top
Of blue Olympus?—Know, the immortal gods
Claim loyal service, and I dare not put
This human love, this all-sufficing love,
Before their worship, lest with jealous brows,
They frown upon our earthly blissfulness,
And seek to blight it. Wherefore, let me go;
And heap thou offerings on Apollo's shrine,
What time I voyage: for thy wafting prayers
Will speed me surelier than the kindest wind
Let loose by Zephyrus.

With rapid prow
Turned toward the blessed Isle, the proud, young king
Waved to his weeping bride a fond farewell;—
Gloating the while, on the delicious tears,
The breathless throbs and palpitating doubts,
Wherewith Alcyoné's so wifely love
Had wrapped itself withal. To him they shown
Like zoneless, wind-waft garments, careless flung
Above the beauty of the orbéd curves,
And ivory-white, lithe limbs, whose statured grace
They heightened—not concealed.

Days passed amain,
Yet brought small respite to the soul distraught
With fateful prescience and consuming dread.
The girdle that with broidered needlework,
She wrought against his coming, listlessly
Dropt from her fingers; and the lyre he loved,
Lay tuneless at her side, as eve by eve,—
Her eyes all dazed through travelling o'er and o'er,
The golden path he went athwart the main,—
She waited for his coming.

Lying thus,
Among her cushions, with her pallid face
Turned seaward, that the first white glint of sail
Might greet her vision,—ere she was aware,
She slept, and sleeping, dreamed.

Above her bent
The mist-crowned Thetis,—her fair forehead touched
With more than mortal pity; and there came
A voice as sad as whispering Oreads hid
In piney forests:

—'Thou shalt watch in vain,
O, sorrowing one!—for nevermore the sail
That bore thy husband hence away, shall come
From out the purple west, where low he lies
Couched in soft-smiling Aphrodité's caves.'

Up-starting from her dream, Alcyoné
Uttered a cry of wo; and summoning
Her household damsels, straightway to the beach
That stretched away beneath the whitening moon,
Hasted;—her hair unfilleted, her feet
Unsandaled, and her girdleless vesture flung
Free to the night-wind.

Up and down the shore
She wandered, wailing,—reaching forth vain arms
To woo him from the inexorable sea.

'O, my beloved!—come to me once more!
O, come again—again! All hope, all peace,
All sweetness that can soothe a hungry soul—
All ravishments mine eyes can ever see—
All harmonies mine ears can ever hear—
All breath—all being, do I hold through thee.
Give back to me thyself—thyself,—or else
I perish—perish! Weakling comforters!
Why babble ye of other solace left?
—As if this drear, wide, barren world could hold
For me, one joy beside!—Commend yon spray
To lips that shrivel with a deadly thirst,
And think to quench their craving!—O, my lord!
Better to me than all the gods in heaven,
Dearer to me than all the souls on earth—
Who hast transformed my being, till I live
Only in loving thee,—behold! I die—
I die without thee!'

Moaning thus she strayed,
Her damsels following, weeping at the dole
They found no words to soften,—till she reached
A headland, at whose base the waters chafed
With ceaseless frettings. Gazing from its height,
Her quickened vision marked one single blot
Of darkness on the silvery line of beach;
And turning to her maidens, her wild eyes
Dilate with terror, pointing thitherward,
She dumbly questioned.

Ere they could reply,
Or follow, down the rocky ledge she sped
With delicate feet that left the wounding flints
Besprent with crimson.

As she gained the strand,
And neared the darkening speck,—upon the breeze
Came wafted upward to the listeners' ears,
A shriek of such unutterable bale
As chilled their souls with horror; for they knew
Alcyoné had found her husband—dead!
And drifted shoreward like an ocean-weed.

They saw her rush with wringing hands outstretched,
To fling herself upon him—but between
The dead and living, swept a refluent wave,
That on its bosom bore the lifeless form
Back to the gulphing sea; and bending low,
The awe-struck gazers on the scarped cliff,
Caught the breeze-borne words:

—'To thee I come,
Beloved! Since thou mayst not come to me!
Reach forth thine arms upon the bitter foam,
And let me spring to meet thee—thus—'
They caught
A gleam of fluttering garments—a dull plash—
The sullen gurgle of recoiling waves—
The clamorous screaming of a startled gull
That flapped its wings above them,—but no more,
For all their wanderings through the windless night—
For all their desolate wailings,—nevermore
The wistful face of sad Alcyoné.

When wintry storms were spent, and gentle airs
Soothed with caressing hand the furrowed surge,
Within Ægean seas,—the voyager,
Watching the halcyon with his brooding mate,
Nested upon the waters tranquilly
As midst Thessalian myrtles,—said:
—'Behold
Alcyoné and Cëyx!—We shall have
Fair weather for our sailing.'

## ART. X.—*NOTICES OF BOOKS.*

1.—ESSAYS PHILOSOPHICAL AND THEOLOGICAL. By James Martineau. Vol. II. Boston: William V. Spencer. 1868. For sale by Cushings & Bailey, Baltimore.

We heartily commend this volume to all who have a taste for philosophical reading or for philosophy. We have certainly found it a delightful production. It consists of nine essays or reviews, called forth by as many separate works, and one discourse on the study of philosophy, having the following titles: Whewell's Morality; Whewell's Systematic Morality; Morell's History of Modern Philosophy; Oersted's Soul in Nature; Kingsley's Phæton; Sir William Hamilton's Philosophy; Kingsley's Alexandria and her Schools; Theory of Reasoning; Plato: his Physics and Metaphysics; and A Plea for Philosophy.

Every real student of philosophy is, indeed, already familiar with the works above-named. The more familiar he is with them, however, the more he will enjoy the criticisms of Mr. Martineau, whether he always concurs with the critic or otherwise. The freshness and piquancy of his style; the justness and moderation of his views; and withal the very original and striking way in which he occasionally puts things; are truly admirable. As all the essays of the volume are philosophical, it would have been better, perhaps, if the author had departed from the chronological order in the arrangement of his miscellanies, and put the last of all first; that is, if he had introduced his series of philosophical disquisitions with his 'Plea for Philosophy.'

To begin our notice with the Plea, he says: 'There are persons with whom it is a traditional habit to disbelieve all mental or moral science. Others, in the zeal of a new conversion, see in the metaphysician only the lingering ghost of an age found dead upon the shore of time; and assure us that when the pious care of M. Comte has scattered sand

enough upon the corpse, the spectre will vanish by the Stygian way.' Such, indeed, are the adherents of the *Philosophie Positive;* a philosophy as one-sided and narrow in its doctrines, as it is arrogant and dogmatical in its spirit. Either because they lack the patience to study, or the capacity to comprehend, the science of mind, these blatant worshippers of the golden calf of materialism,—denying all other gods beside,—abhor and denounce all metaphysics as utterly unworthy of the age of light introduced by themselves. During the dark ages of the past, the study of metaphysics was, perhaps, pardonable in such benighted souls as Plato, Aristotle, Augustine, Aquinas, Bacon, Descartes, Liebnitz, Blaise Pascal, Newton, Locke, and Butler, but since the world has been illuminated by the writings of M. Auguste Comte, John Stuart Mill, H. Thomas Buckle, Miss Martineau, and the Westminster Review, nothing could be more disgraceful than is such an exploded science in such incorrigible blockheads as Sir William Hamilton, Cousin, Coleridge, Guizot, Whateley, Mansel, and, in short, the whole bead-roll of mighty names in the modern dunciad of mental philosophy. If, indeed, any system of philosophy deserves the scorn, derision, and contempt of mankind, it is surely that which heeps scorn, derision, and contempt on all systems except itself, to say nothing of the war it wages against the eternal Father of Lights himself.

If anything could be more astonishing than the vulgar assumption of this new philosophy, it is the palpable absurdity which, to every eye except to that of a *Positivist*, is indelibly stamped on its very forehead. This absurdity is happily hit off by Mr. Martineau. 'We are constantly told,' says he, 'by those who imagine the new organon to have superseded the old, that false metaphysics are the sure parents of false science. But they forget that *no*-metaphysics are sure to be *false*. For what are they? Their negative name is a delusive mask; and no man can reason on these matters at all, no man can even rail at metaphysics without a metaphysic hypothesis (of his own) at least; and the only question is, whether he will reverently seek it by wide and patient

toil, and, consciously possessed of it, call it by its name, or whether he will pick it up among the accidents of another quest, and have it about him without knowing what it is.'

Dr. Whewell's *Elements of Morality and Polity*, which forms the subject of the first Essay before us, deserved notice only as the production of so learned and so celebrated an author. More than twenty years ago, we gave, in the *Democratic Review*, our estimate of the work in question; and we are happy to find our opinion of it confirmed by Mr. Martineau. That the most celebrated Professor of Moral Philosophy in the University of Cambridge, and a *professed* disciple of Butler, should have produced such a work, such a heterogenous compound of the odds and ends of all systems, without the least apparent attempt to reduce the chaos to order, or to adjust the conflicting claims of its various elements, has always struck us as one of the curiosities, not to say monstrosities, of literature. This work illustrates at least one thing, namely, the deplorable condition of moral science in England.

The *Systematic Morality* of Dr. Whewell is, in the main, a reply to Mr. Martineau's strictures on his former work, the *Elements of Morality and Polity*. This reply called forth the second Essay of the series before us, in which it is shown, that as Dr. Whewell had the most imperfect notion of the elements of morality, so he had no conception whatever of systematic morality. Mr. Martineau, however, scarcely does justice to the semi-chaotic darkness, perplexity, and confusion, to which Dr. Whewell has reduced the science of morality. Mr. Martineau, as appears from his reviews of Dr. Whewell's works, is deeply and painfully sensible of the disgraceful neglect into which the study of philosophy has fallen in England. This feeling, indeed, crops out in all his Essays; especially in his review of that delightful work, Morell's *History of Modern Philosophy*.

'This is,' says he, 'a very seasonable book. It gives information which every one, having any pretensions to a liberal culture, desired to possess, yet was puzzled to obtain. It discusses questions of metaphysics, which, even within the

thick covering of the English cranium, are beginning to turn over from their sleep.' 'We never,' he continues, 'despaired of philosophy in England. Low as its condition has long been, and dependent as we mainly are upon our old literature of this kind for what reputation we still enjoy among the schools of Europe, we yet believe that neither our national character, nor our social state, is unfitted to ripen the fruits of reflective science.' True,—very true. But then is not adversity necessary to ripen such fruits, and bring them to perfection? The low condition of philosophy in England has, it is certain, been most remarkable during the period of her greatest material prosperity, and her most devout worship of Mammon; and the fruits of her 'reflective science' have grown best, and flourished most luxuriantly, in the tempestuous times of her great political trials and civil wars. May not adversity, then, be found necessary to renew the age of her Cudworths, her Clarkes, her Lockes, and her Butlers? Or, in other words, to develope, in spite of all her practical tastes and tendencies, a glorious race of thinkers to deal with the great problems respecting the nature and destiny of man, and the glory of God.

We might easily expand this 'book notice' into a long article. So delightful, indeed, are the books reviewed by Mr. Martineau, and so delightful are his reviews of them, that we reluctantly take leave of his fascinating pages. Oersted's *Soul in Nature* is, in spite of its erroneous philosophy, one of the most charming works noticed by our author. Warm, and genial, and generous, however, as are his commendations of the *Soul in Nature*, Mr. Martineau, by no means, spares the unsound principles of Oersted's Philosophy. On the contrary, he lays the axe to the very root of Oersted's mechanical view of the universe, and vindicates, with admirable precision and power, the true doctrine of God, and man, and nature. The following eloquent passage, for example, is in our author's happiest style, and might easily be expanded into a profound and beautiful commentary on the constitution of the universe of mind and matter. 'In cutting down the pre-

tensions of physical theory,' says Mr. Martineau, 'to the rank of hypothesis, we do no more than take it at its word. For what does its first law of motion affirm, but an hypothetical proposition, namely, that *if* a body unoccupied by a will, be acted on by a force, it cannot, when set in motion, change the direction or velocity of its course, without the application of another foreign force? What, as Oersted himself observes, is the so-called "*inertia* of matter but the absence of will from body destitute of soul?" The primary axiom, therefore, and definitions, on which the august structure of the celestial mechanics is raised, do not pretend to be more than conditionally true: should will be absent, then they hold; should will be present, the case does not arise for their application. When the doctrine of central forces is said to account for the motion of a planet, all that is meant is accordingly this: "If no will be there, such is the way in which the phenomena come to pass,"—which we readily grant, but which is not to debar us from thinking that a will *is* there, or to slip from representative modesty to positive usurpation.'

Without following our author any further, we shall simply conclude, as we begun, with a cordial recommendation of his delightful volume to all who, in this practical money-loving and money-getting age, have the least taste or capacity for philosophy. Often, as we have read this volume, have we been reminded of the words of the greatest of poets:

> 'How charming is divine philosophy!
> 'Not harsh and crabbed, *as dull fools suppose*,
> 'But musical as is Apollo's lute,
> 'And a perpetual feast of nectared sweets,
> 'Where no crude surfeit reigns.'

2.—EXCELSIOR; OR ESSAYS ON POLITENESS, EDUCATION, AND MEANS OF ATTAINING SUCCESS IN LIFE. Baltimore: Kelly, Piet & Co. Pp. 290.

This handsome little volume consists of two parts; the first for 'young gentlemen,' and the second for 'young ladies.' The part for young gentlemen, forming about one half the volume, was written by Professor T. E. Howard, A. M.; and the remaining half for young ladies, by a lady (R. V. R.)

We heartily commend the first part of this little volume to Young America; especially Chapter IV., which treats of

'good manners,' 'manliness,' 'table etiquette,' etc., etc.; and Chapter V, which discusses the all-important subject of 'conversation.' Not that we mean to intimate, for a moment, that Young America is at all deficient in good manners, or in the art of edifying and agreeable conversation, but only that, notwithstanding the politeness, and polish, and courtesy for which he is so famous, there may still possibly be some little room for improvement.

Let our young ladies also, by all means, read the second part of the volume before us; especially Chapters VIII and IX, on the subject of 'mental training,' and Chapter X, on 'physical training.' No part of education is, indeed, more sadly neglected in this country, than the physical training of women. Can nothing be done to remedy the evil; for an evil it most assuredly is, and a tremendous one too, which, if not arrested, must sooner or later tell on the character of the American people.

'The exercises of physical training schools,' says our authoress, 'established in some cities, are exceedingly beautiful; they must be seen to be appreciated. Every limb, joint and muscle is exercised, and made strong and supple. The evolutions are performed simultaneously by all, to music, and under the guidance of a drill-master. . . . . They are far more efficient in producing elegance of form and carriage, and grace of motion, than dancing schools can ever be; and, as regards improvement of health, there can be no comparison.' Why, then, should they not be tried in Baltimore?

3.—Rural Poems. By William Barnes. Boston: Roberts Brothers, 1869.

An exceedingly attractive little volume this to the eye. The fine, smooth, glossy, tinted paper, the exquisite typography, the great number and variety of poetical gems, with appropriate illustrations, and the elegant binding, all conspire to make this, both inside and outside, a charming little work for young people. A taste for such a work—for such *Rural Poems*—speaks well for the rising generation of Boston; that is, provided it be genuine and general.

4.—JOHN M. COSTELLO; OR THE BEAUTY OF VIRTUE, EXEMPLIFIED IN AN AMERICAN YOUTH. Baltimore: John Murphy & Co. 1869.

The character of this little book is well and fully expressed in its title. To say that it was published by John Murphy & Co., is to say that, in mechanical execution and taste, it is exactly what it should be. The style of the work, too, is in keeping with its external form, as well as with the character it describes. 'This Little Memoir' is, in handsome and appropriate terms, dedicated to 'His Grace, the Most Rev. Archbishop of Baltimore.'

5.—DR. JACOB. By M. Betham Edwards. Boston: Roberts Brothers. 1869.

We looked into this volume with the impression somehow made upon our minds, perhaps by the name of the writer, M. Betham Edwards, that it was from the hand of a man. The earlier part of the story helped to keep up the illusion. So discriminating were the characterizations; so nicely hit off were certain feminine foibles; and such freedom was there from the peccadillos which so often mar women's pages—no needless expletives, no excess of ornament, no wearisome details, but, on the contrary, a style at once natural, terse, and *clean*, (as a recent critic terms it); that we did not dream it might be the production of a woman. As we proceeded, however, our original impression began to fade away; and, finally, the frequency of such quotations as *Carpe diem—Per varios casus, &c. &c.*, drew from us the involuntary whisper, 'Ah! she betrays herself—the little Latin, like murder, will out!'

There is a singular incongruity about the book. The first half, as we have intimated, is more than ordinarily well written. The scene is almost wholly laid in Frankfort, and gives fine scope to the writer's power in delineating, what has become the fashion of late,—German domestic life,—English Continental Society,—and scores of pretty scenes in and about Goethe's old home:—all of which are done with a Tenniers-like accuracy. Each character is well stamped, and, unlike Dickens,' without the invariable label.

But about the middle of the book, a curious change is apparent; a change so marked, that one is disposed to question whether the characters have not been drawn by one hand, and the plot by another. From the very first chapter, considerable trouble is taken to prepare the reader for a becoming *denouement;* his curiosity is dallied with and provokingly appetized, and yet, when at last the end is reached, lo!—there is no *denouement* at all; or, at best, one so unsatisfactory that the tantalized reader feels quite taken in.

We are prepared to find Dr. Jacob carrying himself *en grand seigneur* to the end; and would have been mollified, in a measure, had he turned out a magnificent scoundrel; but when he drivels down into a contemptible weakling, we lose patience, and own ourselves unfairly dealt with. *Fraulein Fink* is excellent in her way, and altogether the raciest character in the book. Miss Edwards would do well, we venture to suggest, if she would get some strong and more daring hand to outline the plot of her next novel: with the warp rightly drawn, she is fully equal to the supply of the embroidering woof.

6.—Little Women; or Meg, Jo, Beth and Amy. By Louisa M. Alcott, illustrated by Mary Alcott. Boston: Roberts Brothers. 1868.

This is a book for girls, and is a simple, natural picture of home life. The natural and high-toned, though faulty, characters of the girls, who have scarcely attained to the dignity of heroines, will make this little book about 'little women' welcome in many a home. It is, it seems to us, an unmistakable sign of returning health in the taste of the juvenile American, that simple stories like this are in such demand. Let the blessed charge go on; there is still room for improvement.

But why 'the inevitable soldier,' or scraps of the late war, in a book about 'little women?' If it had only been about *little men*, then, indeed, might an abundant supply of appropriate characters have been found among the heroes of the late war.

7.—Madame de Beaupre. By Mrs. C. Jenkins, author of 'A Psyche of To-Day,' 'Who Breaks Pays,' &c. &c. New York: Leypoldt & Holdt. 1869. Pp. 278.

One seldom sees the nationality of the author so completely sunk in that of the characters depicted as in this little *duodecimo*. *Madame de Beaupré* is a charming little story of life in a provincial French town, as seen by the eye of a French woman, and pervaded by that peculiar French sentiment, which is so unmistakable, and, at the same time, so very difficult to define. The characters are well delineated, especially those who are allowed to speak for themselves; but so numerous are they, that they impede, rather than facilitate, the progress of the story. Why has the author thrown them out in such profusion? Was it merely to display her powers of description, or to enjoy the exercise of her power of creation?

The dress of the little volume is pretty—the paper, the type, and the binding, are all attractive.

8.—The Ideal in Art. By H. Taine. Translated by J. Durand. New York: Leypoldt & Holdt. 1869. Pp. 186.

This little volume, every word of which we have read with much interest, consists of the substance of two lectures, delivered during the past year to the students of the *Ecole des Beaux Arts*, in Paris, by M. Taine, Professor of the History of Art in that institution. It is designed to carry out and complete the theory, which the author had set forth in his *Philosophy of Art;* a work which should be read in connection with the present volume. It would, perhaps, be a little difficult for the general reader to obtain, from this volume alone, any very clear view of the author's idea of Art, or of his *Ideal in Art*. 'The whole of art,' says he, (p. 156) 'lies in two words, *concentration* in *manifestation;*' a statement, or definition, which we construe in the light of the disquisition by Coleridge, (or rather by Schelling,) on the nature of the imagination as the *esemplastic* power of the mind, or the power by which many things are moulded into one. But whether, in this little volume, the general reader should discover the author's ideal of art or not, he will certainly find

many things pleasant to read; that is, provided the principles of art are not wholly foreign from his intellectual tastes and pleasures.

9.—A New Manual of the Elements of Astronomy, Descriptive and Mathematical: comprising the latest Discoveries and Theoretic Views. By Henry Kiddle, A. M., Assistant Superintendent of Schools, New York. New York: Ivison, Phinney, Blakeman & Co. 1868. Pp. 286.

We have examined, with considerable care, this 'new manual of the elements of astronomy;' and if we had to teach this science to a class of boys, or girls, we should prefer it, as a text-book, to any volume with which we are acquainted. It seems, indeed, admirably adapted to such a purpose; being nearly always, or in the main, clear, simple, direct, and accurate, in its statements, as well as happy in its illustrations. We have, however, noticed a few things in the volume, which appear unworthy of its general good character, and which should be corrected in future editions of the work. Thus, on page 102, the author says: 'The *volume* of the sun is, as already stated, about 500 times that of all the planets; the *mass* is, however, about 700 times as great. This shows that the mass of the sun is greater than the *average* mass of the planets.' A very strange blunder this, not to say sheer nonsense. The mass of the sun 700 times as great as the mass of all the planets put together; and 'this shows that his mass is greater than the *average* mass of the planets!' The author probably intended to say, what he certainly should have said, that as 'the *volume* of the sun is about 500 times as great as that of all the planets, while its mass, or weight, is 700 times as great as their aggregate mass or weight; it follows that its density is greater than the *average* density of the planets. This statement, or inference, makes sense; and, accordingly, we shall look for it in the next edition of the *New Manual*.

Again, on page 104, it is said: 'The discovery of spots on the solar disc is noticed in history as early as 807 A. D.' Our author has, for this statement, the authority of the celebrated astronomer M. Arago; but, besides coming into conflict with the general opinion of astronomers, M. Arago has,

in this instance, committed a palpable oversight. 'The discovery of the solar spots,' says he, 'completely overthrew one of the fundamental principles of the peripatetic astronomy, viz., the principle of the incorruptibility of the heavens. It appears to me, then, that the reader may be desirous of knowing the first astronomer who established by incontestible observations the existence of these spots. According to an opinion which generally prevails, especially in Italy, this astronomer was Galileo; but I am inclined to think that this is a mistake.' Now, in order to overthrow the prevalent opinion, and to dispute 'the claims of the passionate admirers of the illustrious philosopher of Florence,' M. Arago says: 'Several historians of Charlemagne relate that in the year 807 a large black spot was visible upon the sun during eight consecutive days. It has been supposed that this spot was Mercury, without reflecting that, according to the known movement of that planet, it was utterly impossible it should remain projected on the sun during eight consecutive days.' Now, whether it was Mercury or not, it is certain, that just so long as it was supposed to be Mercury, this belief precluded the possibility of its entering into the imagination that it was, in the proper sense of the word, 'a solar spot.' According to M. Arago, some supposed the spot seen on the sun in 807 was Mercury, and some that it arose from a defect in the eye, or the imagination, of the observer. Astronomers made various suppositions indeed, just because the idea of real spots on the sun had never entered into their conceptions or belief. What, then, in the name of common sense, had such an appearance to do with the question, as to 'the first astronomer who established by incontestible observations the existence of these spots?' Why, it was not even believed to be a spot; much less was it established as such by incontestible observations? The projection of Mercury, or of Venus, on the sun, during a transit of the planet, is no more a solar spot, than is the projection of the moon on the same great luminary in a solar eclipse. The supposition that one saw the shadow of Mercury, or of the moon, or of Venus, on the sun, was cer-

tainly not the discovery of the solar spots, by careful, cautious, and 'incontestible observations.' We agree, then, with Sir John Herschel, that 'one of the earliest applications of the telescope was to turn it on the sun;' and that 'the fruits of this application . . . in the year 1611 . . . was the discovery of black spots on its surface.' Then were the solar spots first seen and recognized *as such* by astronomers; or the great fact first 'established, by incontestible observations,' that these spots adhere to the sun. The historians of Charlemagne, who, in 807, saw something on the sun, without knowing what it was, are not to be named among the first discoverers of the solar spots.

M. Arago endeavors to prove that, contrary to the general opinion of astronomers, spots were discovered on the sun as early as the year 321, and even before the Christian era by the Chinese. But we have examined only the evidence adduced by him for the year 807 to which Mr. Kiddle refers.

'A body,' says Mr. Kiddle, (p. 28) 'when acted on by a single force, moves in a straight line; and will continue to move in the same direction, *and with the same velocity*, until acted upon by some other force.' Now this is not true. For if the 'single force,' which acts on the body, be a constant one, the body will move with a continually accelerated velocity. It is only when a body is acted on by a single *projectile*, or *impulsive*, force, that it moves with a uniform velocity; and, accordingly, the single force should be so characterized in order to make the proposition of the author true. If a writer on astronomy should be accurate any where, it should most assuredly be in defining the laws of motion.

The author says, (p. 33.) 'The velocity of a planet must therefore be variable when it moves in an elliptic orbit, *being greatest at the aphelion, least at the perihelion*,' &c. Now this is exactly the reverse of the truth. The velocity of any planet is greatest at the perihelion, and least at the aphelion. We do not suppose, for a moment, that this blunder was the result of ignorance; for the author evidently knew better, as appears from the preceding paragraph of his book. But,

then, the gross carelessness, which permitted such a blunder to creep into the text of his book, is scarcely pardonable.

From these errors, as well as from some others which might easily be pointed out, it is evident, that the work of Mr. Kiddle needs a careful revision. With such a revision, or correction of its errors, it will form an admirable text-book for schools and academies. One of the most pleasing features of the book, is 'the brief historical sketches of the various discoveries' in astronomy, which 'are given in connection with the facts to which they relate.' Our author truly calls this, 'a most fascinating part of the subject;' and for the very reason that it is so fascinating, it should be as correct as possible. It should certainly consult more guides, or authorities, than one; especially if that one is M. Arago, who is, at times, grievously at fault in his historical sketches of great discoveries.

10.—Annals of Rural Bengal. By W. W. Hunter, B. A., M. R. A. S. &c., of the Bengal Civil Service. New York: Leypoldt & Holdt. 1868.

The reticence of eastern peoples is remarkable. The English govern India as best they can; but whether their dominion gives satisfaction to the mass of the people, or what particular acts of government meet with approval, are questions which they have no means of determining. Mr. Hunter attempts in a measure to lift the veil from the sentiments of the masses. His failure is not due to a want of labor and intelligent observation. Something must be done to make the natives less reserved, before the English can be secure of that best pillar of government, the consent of the governed.

Mr. Hunter, however, makes a valuable contribution to our knowledge of the manners, customs, traditions, history, ethnology, and language of the Bengalis. The author possessed rare advantages for investigating questions connected with the aboriginal people and language of Bengal, and for marking their adulteration by foreign elements.

'The population of Lower Bengal, ethnically considered, consists of two elements; first, the Aryan invaders, almost all of whom assumed the rank of Brahmans; and, second, the Aborigines.'

There are indistinct traces of primative races, which perished in pre-historic times. These the author disposes of, along with the birds of the Lias, and such like, in a rhetorical flourish which, perhaps, is allowable in a man who has done so much dry work.

'In India all three classes of languages meet as upon a common camping ground. Bengal with its dependencies, forms a vast basin into which every variety of speech has been flowing since pre-historic times. There the whole philological series will be found, each stratum lying above its predecessor; from the Isolating languages, that hard primary formation, through the secondary layers of the Compounding class up to the most recent deposits of Inflecting speech, the alluvial Bengali and Hindi,' (p. 167.)

India thus presents the finest field for the study of language. Fortunately, Mr. Hunter's official position placed him in a district where the linguistic problems were less complex than in the central valley of the Ganges. Beerbhoom and Bishenpore lie in the western part of lower Bengal, and mark the confine reached by the successive waves of invasion sweeping down from Northern India. They offer peculiar advantages for investigating the language of the aborigines, and the dialects arising from its amalgamation with those of the invaders. The results of the author's study are that, the vernacular of the aboriginal hill men, called the Santali, is one of the Compounding languages; it contains certain roots expressive of simple ideas in common with Sanskrit, and it is probable, that the Sanskrit and Bengali have borrowed certain words and sounds from the Santali. By far the most interesting conclusion reached is, that the study of the Santali may do for the Compounding languages what the study of Sanskrit has done for the Inflecting. The Santali seems to point to the northeast of the Himalayas as the starting point of the Indian aborigines; but there seems to be no sufficient material to warrant the conjectural importance given to the Santali as the probable key to the languages of East-Central Asia.

The author gives a very instructive sketch of the early history of English rule in Western Bengal. The political economist will find much to interest him in the devices used for overcoming the social, financial, and supply difficulties, which taxed to its utmost the inadequate government machinery of the time. In fact, India has been a sort of experimental ground for testing the projects of state-craft. These experiments have been conducted in an enlightened and humane spirit, and have contributed to demonstrate the value of the more recent discoveries in political economy. At first, the East India Company merely took charge of the revenue, and was only careful to be strict and exacting in its collection. It had neither the opportunity, nor the appliances, for relieving the people, who were, and had been for years, suffering from misgovernment. The early civil administration is, perhaps, liable to the charge of fickleness in adopting in rapid succession, different plans for relieving the distresses of the governed without giving any of them a sufficiently consistent and continued trial, to test its merits. In spite of this, however, as well as of many instances of cruelty and oppression, the rule of Britain in India has, in the whole, done a great work in the cause of civilization.

Not the least interesting topics treated of in this work are the religions of these peoples, and the great famines which, from the earliest times, have been occurring in India. The religion is a much coarser form of superstition than those brought down the Ganges from the northeast. The chief worship is directed to Siva, the bad spirit; and this, because the good spirit being already well disposed, need not be propitiated. The whole question of famines is elaborately discussed; their cause, their effects, their prevention. Although the famine of 1866 is a recent and terrible calamity, it seems safe to say that, without an unparalleled failure of crops, there is no longer any danger of such a dread scourge. Improved means of intercommunication, and the growth of trade, offer a guarantee against their recurrence.

How much of the character of this singular people can be learned from their conduct during the prevalence of a famine!

In 1866, 'many a rural household starved to death without uttering a complaint or making a sign.' What an age of oppression must it have required to destroy the spirit of a people so effectually, that even the political disaffection springing from empty stomachs should cease to exist! 'Silent feeders' are abundant, and to be seen at any of our hotels; but the story of a silent starver, to an American who whines at the lateness of his dinner, must ever remain a myth. A wealthy man in India, indisposed to charity, would have no occasion for delivering homilies to the clamorous poor on the science of starving with propriety.

A striking proof of the beneficial effects of English rule on the Bengalis, is found in the difference of the effects now produced, and those formerly produced, by ardent spirits. *In vino veritas.* The behaviour of a man when drunk is a very fair test of his grade as a civilized being. Formerly most of the crime in Bengal, was traceable to the use of intoxicating drinks; but now the most violent form the excitement takes, consists in making profound obeisances to every one in the street.

11.—Letters of Madame de Sevigne to her Daughter and Friends. Boston: Roberts Brothers. 1869.

These celebrated Letters call for no critical notice at our hands. More than thirty years ago, we read them with delight, and still retain the impression they made upon our minds. Dr. Blair, in his *Lectures on Rhetoric and Belles Lettres*, says: 'The Lettres of Madam de Sévigné are now esteemed the most accomplished model of a familiar correspondence. They turn indeed very much upon trifles, the incidents of the day, (just as they should do,) and the news of the town; and they are overloaded with expressions of fondness for her favorite daughter; but withal, they contain such easy and varied narration, and so many strokes of the most lively and beautiful painting, perfectly free from any affectation, that they are justly entitled to high praise.' These are, indeed, precisely the qualities which render the Letters of Madam de Sévigné so perfect a model of familiar correspondence.

12.—The Letters of Lady Mary Worltey Montagu. Boston: Roberts Brothers. 1869.

These Letters, says Dr. Blair, 'are not unworthy of being named after those of Madame de Sévigné. They have much of the French ease and vivacity; and retain more the character of agreeable epistolary style, than perhaps any letters which have appeared in the English language.'

13.—A Book about Boys. By A. R. Hope. Boston: Roberts Brothers. 1869.

This is a readable, racy, and suggestive book. It should, indeed, be read and pondered by every one who has anything to do with boys. The author adopts the advice of Dean Swift, where he says: "Positiveness is a good quality for preachers, and orators, because he that would obtrude his thoughts and reasons upon a multitude will convince others the more he appears to be convinced himself. Accordingly, in my *Book about Dominies*, and in the present *Book about Boys*, I have been positive and egotistical to a degree which I had expected to produce more hostile criticism than has been the result." (Preface, pp. vii and viii.) That is to say, he assumes a positive manner, and speaks in an egotistical, dogmatic way, in order that, by appearing deeply convinced himself, he may carry conviction to the minds of others. His readers will, of course, thank him for the information, and guard themselves against the deception which, as the author tells them, he intends to practice on their credulity.

Again, the author says, (Preface, p. viii,) 'Ignorant and envious people may possibly attempt to depreciate my character for elegance and precision, by asserting that I have repeated myself more than once, have said much the same thing in different places, with the view of distending my pages. I repudiate the insinuation with scorn. The fact is, my experience as a teacher has taught me that what is necessary to convince the mass of mankind of the truth of any particular doctrine, is to keep constantly repeating the enunciation till it becomes familiar, and therefore commends itself to their minds.' Or, in other words, the author gravely tells his readers, that he means to drive home conviction to their minds, not by his reasons, but by his repetitions! 'An honest confession,' it is said, 'is good

for the soul.' Such honest confessions certainly ought to be for the good of Mr. Hope's readers; who, if they are wise, will not swallow any of his propositions merely because they are asserted with such an 'appearance' of deep conviction, or merely because they are so frequently repeated. On the contrary, they will look at his reasons more than at his repetitions, and despise every appearance of confidence, which is merely put on for effect. His readers, if wise, will not only do this; they will, at the same time, derive both pleasure and profit from his *Book about Boys*.

14.—Force and Nature. Attraction and Repulsion: The Radical Principles of Energy, discussed in their relations to Physical and Morpological Developments. By Charles Frederick Winslow, M. D. Philadelphia: J. B. Lippincott & Co. 1869. Pp. 490.

We have, as yet, read only the introduction to this book; and this has begotten in us a very great desire to read the book itself. But such a work is not to be touched lightly, or judged of hastily. The first part of the title, *Force and Nature*, is suggestive of grand conceptions, and the remaining portion, *Attraction and Repulsion*, &c., points directly to the most profoundly interesting questions, which, for the last half century, have attracted the attention of physicists and philosophers. We promise ourselves a very great treat in the examination of the author's views of the *Cosmos*. We can, in the meantime, safely say, that it speaks well for him, as a patient, deep, accurate, and comprehensive thinker, that the fundamental principles of his philosophy are not one-sided and exclusive. 'No system,' says he, 'of natural or positive philosophy can reach its legitimate boundaries, comprehend nature entirely, and unfold by successive sequences into its grandest developments, and yet be wholly material and physical. *A true and enduring system must embrace both physics and metaphysics.* A true system must, furthermore, embrace geometry and the algebras—not their mere physical and symbolical terms, but their high, deep, and purely intellectual principles, which, appertaining to psychology and expressing an absolute universality of mind and purpose, lift us freely and positively into studies of the Infinite.' (Introductory, p. 5.) Again, he says on the next page, 'No positive system of philosophy, no

grand generalization of grave facts and of final irreversible inductions in experimental and natural sciences, and in universal thought and numbers, can be, or pretend to be, perfectly unfolded and *yet exclude ethics and metaphysics.*'

15.—The Jerusalem Delivered of Torquato Tasso. Translated into English Spenserian Verse, with the Life of the Author, by J. H. Wiffin. Third American from the Last English Edition. New York: D. Appleton & Company. 1869.

This celebrated classic, with the life of the author, is published at the marvelously cheap price of fifty cents. The life alone is worth more than the price, to say nothing of the great poem which follows.

16.—The Culture Demanded by Modern Life; with an Introduction on Mental Discipline and Education by E. L. Youmans. New York: D. Appleton & Co. 1867.

This work, though two years have elapsed since its publication, has been received too late for careful examination, and extended notice, in this issue of The Southern Review. Indeed, such a work calls for no other notice than the bare mention of the names of the authors of the various *Addresses* and *Essays* of which it is composed. In this galaxy of names—and a glorious one it is—we find those of Tyndall, Henfrey, Huxley, Paget, Whewell, Faraday, Liebeg, De Morgan, Carpenter, Acland, Forbes, Herbert Spencer, Sir John Herschel, Sir Charles Lyell, and others of less note. We need scarcely add, that whatever proceeds from the minds of such men, is worthy of the profound attention and consideration of the friends of human knowledge and human progress.

17.—An Address to the Colored People of Georgia. By Elias Yulee, a member of the bar. Savannah. 1868.

Mr. Yulee's attempt to convince the negroes that the Southern whites are their truest friends, may meet with some success; for the current of events is awakening them to the fact. But pictures of the negro's condition in Africa, and of his improved state in America, proofs of the complicity of Northern men in the importation of negroes to the United States, and of the opposition of Southerners to this importation, and such like, are sentimental views of the subject, likely to make little

impression on the negro or any one else. Gratitude for favors bestowed on one's remote ancestors, is not a very lively feeling in this age. The absolute necessity for amity between employer and employee, is the constraining power, which must adjust the relation of the planter and the freedman. The whole labor system of the South having been demolished, and master and servant being alike ignorant of their new duties and privileges, many misunderstandings and much bad feeling may arise between the representatives of capital and labor; but, in time, matters will adjust themselves to the exigencies of the new situation. That gratitude, which has been called a keen sense of favors to come, is better calculated to influence the sentiments of the negro than any lessons drawn from the past history of his race. Meanwhile Mr. Yulee's pamphlet may do much good by counteracting the influence of interlopers, who, from motives of self-aggrandizement, are interfering to postpone a settled state of affairs.

18.—Minutes and Reports of the Educational Association of Virginia. Third Annual Session held in Richmond, Va. July 21-24, 1868. Lynchburg: Schaffter & Bryant.

This Association was organized 'to promote the educational interests of the State' of Virginia. Like most movements of this character, it finds a great enemy in the inertia of friends and members. Of course, it develops every summer a certain amount of spasmodic zeal, but the apologetic and incomplete nature of most of the reports, show that it is not a working zeal.

The pamphlet contains the minutes of the session, a list of members, a constitution, the special committees, an address by the President, and six reports of committees.

We cannot commend too highly the whole tone of Dr. Minor's Address on *The Responsibility, Influence, and Dignity of the Teacher's Profession.* Some objections might be made to his ideal of Education. Limited private schools have their faults, even the best of them; faults which belong to the system. Their tendency is to develop insipidities. Mr. Hope, in his *Book about Boys*, compares such schools unfavorably with the larger public schools. There is also in Dr. Minor's remarks

on the use of free conversation as a means of education, some tinge of the old indisposition to let boys be boys.

The Report of the Committee on the Latin Language and Literature, presented by Prof. Walter Blair, is very suggestive and may be read with profit.

The Report of the Committee on the Greek Language and Literature, presented by Mr. James M. Garnett, is full and carefully prepared. This committee seem to have preserved much of their zeal through the winter frosts, and to have labored very faithfully on the work assigned them. Their Report discloses the fact that the Association deem it inexpedient, at present, to recommend any series of text-books. The reason given for this, is the fear of creating a lobby. Lobbies are bad things; but, if the Association so shapes its course as to avoid this fungus growth, it will never come very close to a good many practical questions in the sphere of its usefulness. To recommend reliable text-books, would seem one of the first of its duties, and yet it cannot be denied, that certain similar organizations in the Northern States, have become mere agencies for advertising books.

Could not something be done to keep up the interest in this Association by debates on educational subjects?

19.—Valedictory Address to the Graduating Class of the School of Medicine of the University of Maryland, delivered March 3d, 1869. By S. T. Wallis, Esq. Published by the Faculty. Baltimore: Kelly, Piet & Co.

This Valedictory is, like everything from the pen of Mr. Wallis, an exquisitely polished and beautiful production. The advice is, in the highest sense of the word, practical as well as eminently good; the sentiments are elevated and noble without being at all overstrained or unnatural; the reflections on life and society are appropriate and just; the whole Address, in one word, is precisely such as we should have expected from Mr. Wallis,—a series of glowing truths set forth in fascinating modes of expression.

'When I speak,' says he, 'of professional success and the rewards of professional ability and effort, I do not mean—for I should hold it an insult to your aspirations to present you—only the grosser and more tangible results which take the shape

of popularity and pay. No sensible man despises or pretends to overlook these, of course. The atmosphere of human life, bright as it may be with the rosiest visions, still rests upon the ground.'

Again, he says, 'the love of applause is so perpetual a spur—to speak, perhaps, more appropriately—so pleasing a stimulant, to the noblest natures; it is so mixed up with our highest and purest and most genial impulses, that to discourage it would be like blunting our sense of the good and the beautiful, or blotting out any of those fine, great instincts which are the celestial leaven of humanity. Whether the thirst after a reputation which we shall enjoy in life, or the craving for a name which shall live after us, be the more effectual incentive to the things which make men great, I am not here to discuss. It is a question which the debating-societies have left unsettled, and I suppose, after all, that its solution depends, in a great degree, upon the mental and moral organization of individuals. There is, to almost every one, and there should be, to all, a charm in the visible tributes of public admiration and respect. When, therefore, the world crowds around a man, burning myrrh and frankincense, he naturally enjoys the present swinging of the censers, a good deal more than the prospect of their smoking, ever so devoutly, at his funeral. The honors which come home, like fruits and flowers in season, while taste and appetite are fresh and the senses yet rejoice in fragrance and beauty, are apt to win even the loftiest and greatest from lone dreams of palms and bay trees, which shall be watered in centuries to come. When we think, for instance, of Raphael, in the full splendor of his triumphs and his fame, the friend of Popes, and Cardinals, and Princes, beloved of women, envied and adored by men—the very 'centre of a world's desire'—we feel that we should scarcely marvel if, amid such fascinations, he forgot the beckoning angels of his youth. And yet, when we remember Raphael, dead in the chamber where he painted, with the fresh canvas of the Transfiguration radiant above his bier, and making its mortality immortal, we wonder how any creature, with a soul, could barter the prescience, nay, even the mere dream, of such a glory, for any other thing that life could give.

'Do not, I pray you, think that I am leading you away to cloud-land. It is one of the sad mistakes of our generation, that to be practical you must descend, and the lower you descend the more practical you become. There is a growing contempt for everything that cannot be measured or counted, and the busy men, whose mission upon earth is to have irons in the fire, have a sort of notion that the world has grown too old and wise to let sentiment be a hindrance to results.'

In the striking parallel, which Mr. Wallis runs between his own profession and that of medicine, we find the following sad reflection: 'In that (profession) of which I am an humble member there is undoubtedly more of the stimulus which comes from personal collision and triumph. Its contests are dramatic. Its excitements stir the blood. Its successes, sometimes, have the glow and flush of victory in downright strife. It has all that is animating and ennobling in the grapple of mind with mind, the rivalry of skill, experience, and courage, wrestling with courage, experience, and skill. But the triumph dies almost with the struggle, and the reputation of the lawyer who has led his Bar for half a lifetime, is as transitory, nearly, as the echoes of his voice. He contributes little or nothing to the stock of human knowledge. He has given himself to the study and application of a science—if indeed it be a science—which as often deals with artificial principles and dogmas as with great, abiding truths. In grasping at the philosophy of jurisprudence he is fettered, even in this day and generation, by precedents of scholastic absurdity which date back before the Wars of the Roses, and by statutes the very records of which were lost before the Reformation. The scientific aim and effort of his professional life is simply to show that 'thus it is written.'

This reflection has, doubtless, frequently occurred to the mind, and weighed on the spirit, of the author of the Address before us; for, unless we are greatly mistaken, a man with his tastes, and genius, and generous aspirations, must have found the legal profession, in spite of the eminence he has attained to therein, a sort of imprisonment for life.

We beg the reader will not infer, either from our unqualified eulogy or from our silence, that we are prepared to subscribe to every important opinion or sentiment in the admirable Address of Mr. Wallis.

20.—Home Pictures of English Poets, for Fireside and School-Room. New York: D. Appleton & Company. 1869.

A happy idea happily executed, is the little book before us. The design to 'interest the young' in 'our best English Poets, from old Father Chaucer to the short-lived Burns,' is carried out by 'making a story, as well as a lesson', of the life of each of the Poets. The story, or the biographical sketch, is so well and so pleasantly written, that it cannot fail to interest every intelligent young reader, as well as furnish his mind with valuable information respecting the works of the poet. We shall certainly introduce this little volume both to the 'fireside and the school-room.'

21.—The Lily of the Valley; or, Margie and I: and other Poems. By Amy Gray. Baltimore: Kelly & Piet 1868.

We have just read, for the first time, these 'poems of the affections', as Wordsworth would call them. If we may judge from her writings, there has seldom ever been a more gentle, loving, or unpretending disposition, than that of Amy Gray, in whose heart of hearts these little poems have evidently sung themselves into life, with little consciousness of the external world, or of her own existence. Amy Gray is, indeed, to use a happy phrase of old Chaucer, 'as simple as bird in bower.' No fierce passions, and no spasmodic energies, appear in her poetical effusions. She simply carols out the heart within her, and its pure affections, without once straining after effect, or ever thinking of the effect she is likely to produce. Hence, her song is all in vain, and worse than in vain, except for those who have hearts in unison with her own. The flinty nature will not feel it; but wherever in the heart, either of man or woman, there is an Amy Gray, it will be heard with pleasure.

'The object of the publication of these Poems', we are told in the Preface, 'and in view of which most of them were written, is to aid in the education of destitute little girls of the South, orphaned by the late war.' Now, we are no be-

lievers in poetry, or in any other work of art, which is produced from any motive outside of itself, or the pure love of the art. But it would be unjust to the author to infer, from the above statement, that her poems were composed, not from the pure love of song, but only from a motive of benevolence. Her poems were, as she says, written out and published with a view to 'aid destitute little girls of the South, orphaned by the late war;' but, as is evident, they were not originally composed, or sung in her soul, for any such purpose, however holy and humane. The dedication of her poems, as well as the object for which they were written out and published, shows that Amy Gray carried in her woman's heart, not only 'dear little Julia Jackson', but also 'all the little ones of the South, who have been orphaned by the late war.' This may not be poetry, if you please; it is certainly something infinitely better than poetry. It is the very stuff of which the music of heaven itself is made.

'The author cannot hope', she says, 'for more than a mite, from so small a volume—the production, too, of an unknown writer; but the proceeds, whatever they may be, will be unreservedly appropriated to the object above named. To an intelligent and generous reading public, the author confides this little work, feeling sure that their generosity will secure for it a patronage that its intrinsic merit cannot hope to obtain.'

How modestly these little poems put themselves forth! They remind one of the mountain daisy,—'Wee, modest, crimson-tipped, flower',—and we turn aside the critic's ruthless ploughshare. But even in our most flinty mood as critics, we cannot believe that where there is so much modesty, there is no real merit. These poems are, indeed, entitled to the patronage of the public, on the ground of their intrinsic merit alone. The readers of Shakspere, and Milton, and Byron, may despise such poems; but the great world we live in, contains material as precious as the readers of Shakspere, and Milton, and Byron. The 'little ones of the South', for whose benefit these poems were published, are entitled to their poetry as well as their prose; and for these little ones our good Amy Gray has provided a rich repast. We have made the experiment, and found

it so. In everything which has been written about poetry, we are informed that 'the poet is a creator'; and this information is no doubt profoundly true. But, then, it is hardly fair to judge Amy Gray, as if she had set herself up for a poet in this exalted sense of the word, or as a rival of Homer, or Milton, or Shakspere, or Scott. Yet it will be difficult to find in the productions of these proud 'creators', a more lovely picture of all that is pure, and gentle, and tender, in the love of two 'maidens for each other', than we have in *The Lily of the Valley; or, Margie and I.* The imagination of the poet has its roots in this love; and it blossoms in words like these:

Then touching his charger of gray,
In a moment he sped away;
Yet I saw the tender light in his eye,
Caught a glimpse of the cap that he waved on high;
And as I heard her low, soft sigh,
As her gentle heart was stirr'd
By the last fond, parting word,
I drew to my bosom our poor, lone bird.

Margie was young and fair;
And the locks of her silken hair
Seemed a flood of golden sunlight, shed
From smiling Heaven on her drooping head;
While the hue of her beaming eye
Seemed borrow'd from the sky;
And the lilies and roses played hide and go seek
On the pensive brow and the rounded cheek,
And the quivering lips that essay'd to speak
Their tremulous good-bye.

The line, 'I drew to my bosom *our poor, lone bird*', seems to us touching and tender. We have, at least two or three times in the course of a long life, seen hair exactly like Margie's; and yet we cannot remember, that we have ever seen it more perfectly or more poetically described, than it is in the last of the above stanzas.

'The Broken Chord' is, it seems to us, the best poem in the volume. To form a just idea of this poem, it is necessary to read the whole of it from beginning to end; to see of whom the family circle was composed, and how they 'used to sing the Evening Hymn'; how, one by one, 'each music-tone was still'd', by death in various forms, till the Evening Hymn could no longer get itself sung in that once happy, but now desolate, household. We shall merely add a few extracts:

Our Charley, 'mid the battle's roar,
In youth's full flush of pride,
Fell, in the thickest of the fight,
Where many a hero died.

The *Cause* has fallen too; but I
Had rather know that he
Was sleeping 'mid those *honored dead*,
Than have him *here* with me.

No banner, floating to the breeze,
Above his sod may wave;
Yet not a *Southern heart* but feels
It is a *patriot's* grave.

* * * * * * *

Our mother bowed her gentle head
Beneath the waves of care;
And now, her blessed, weary feet
Have reached a home more fair:

And I am glad that she has gone
Where sorrow is unknown,
Although she left my shadow'd life
More desolate and lone.

The little one, with golden locks,
Born for the sunshine bright,
Droop'd her young head beneath the shade
Of Sorrow's chilling night.

'Twas in the autumn of the year,
When Nature sets on fire
Her forests with a magic torch,
In glory to expire.

I felt, as all the autumnal glow
Charm'd my admiring eye,
If Nature lives in beauty, oh!
She does know how to die!

* * * * * * *

Yes, thus it was that, one by one,
Each music-tone was still'd:—
Hush'd are the softest, sweetest notes
That once our spirits thrill'd.

The servants now are scattered far
O'er many a distant plain;
The bell will summon them no more
To evening prayer again.

Now, when the evening shadows come,
And Nel begins to weep,
Old Mammy folds her in her arms
And hushes her to sleep.

She is a little fragile flower,
Upon whose drooping head,
No warmth nor brightness from the Sun
Of Joy is ever shed.

She hears no brother's gleeful laugh;
No playmates gay has she;
No sisters dear to pet and kiss,
Excepting only *me*.

No mother's kiss, at morn or night,
Is ever to her given;
And she is yet too small to learn
How bright it is in Heaven.

Though nightly, Mammy softly smooths
The little curly head,
And whispers, 'Blessings on my pet;
Good angels guard her bed.'—

Those dear, rough hands! how many paths
They have with sweet flowers strown!
And all their noble acts of love,
The world has never known.

How many little feet they've turned,
With such a tender care,
From dangerous ways, to pleasant paths,
With sunshine everywhere!

In after years, when fair young heads
Were tired, and longed for rest,
'Twas those dear hands that pillow'd them
So gently on her breast.

O Mammy! friend of better days!—
And just as true in sorrow!—
What you are, Mammy dear, to-day,
We know you'll be, to-morrow.

O Mammy! your dark, wrinkled face
Is dearer far to me,
Than if it was the fairest thing
The eye could ever see.

For it is like a faded page
Of dear old, well-read lore,
Where oft we find a beauty that
We never saw before.

In spite of artistic defects, which a severe critic might point out in the poems before us, they show, that Amy Gray is a poet, and should cultivate the gift that is in her. If she had never written anything beside *The Broken Chord*, she would have proved herself a poet; and, *as such*, worthy of her woman's mission to 'the little ones of the South.'

22.—Essays and Lectures; on 1. The Early History of Maryland; 2. Mexico and Mexican Affairs; 3. A Mexican Campaign; 4. Homœopathy; 5. Elements of Hygiene; 6. Health and Happiness. By Richard McSherry, M. D., Professor of Principles and Practice of Medicine, University of Maryland. Baltimore: Kelly, Piet & Company. 1869.

Essays on subjects of such interest as the above, and from the pen of so learned, accomplished, and discriminating a scholar as Dr. McSherry, can hardly fail to be read by others, as they have been read by ourselves, with both profit and pleasure.

## *BOOKS RECEIVED.*

*The Wreath of Eglantine, and other Poems:* Edited, and in part composed by, Daniel Bedinger Lucas. Baltimore: Kelly, Piet & Company. 1869.

*The Waverley Novels.* By Sir Walter Scott, Bart. Waverley, Guy Mannering, Kenilworth, Ivanhoe. Illustrated with steel and wood engravings. New York: D. Appleton & Company. 1868.

*The Waverley Novels.* By Sir Walter Scott, Bart. Rob Roy, Old Mortality, Monastery, Pirate, Black Dwarf. Illustrated with steel and wood engravings. New York: D. Appleton & Company. 1869.

*Mr. Midshipman Easy.* By Captain Marryatt. New York: D. Appleton & Company.

*The Poetical Works of Fitz-Greene Halleck*, with extracts from those of Joseph Rodman Drake. Edited by James Grant Wilson. New York: D. Appleton & Company. 1869.

*Goethe and Schiller. An Historical Romance.* By L. Mühlbach. Translated from the German by Chapman Coleman. Illustrated by Gaston Fay. Complete in one volume. New York: D. Appleton & Company. 1869.

*Lecture-Notes on Physics.* By Alfred M. Mayer, Ph. D., Professor of Physics in Lehigh University, Pa. Philadelphia: From Journal of Franklin Institute. 1869.

*How a Bride was Won; or, a Chase Across the Pampas.* By Frederick Gerstäcker. With illustrations by Gaston Fay. New York: D. Appleton & Company. 1869.

*Prince Eugene and his Times. An Historical Novel.* New York: D. Appleton & Company. 1869.

*Endoxia: A Picture of the Fifth Century.* Translated from the German of Ida, Countess Hahn Hahn. Baltimore: Kelly, Piet & Co. 1869.

*The Gain of a Loss. A Novel.* By the author of the Last of the Cavaliers. New York: Leypoldt & Holdt. 1869.

*The English Classics.* An Historical Sketch of the Literature of England from the Earliest Times to the Accession of George III. By R. M. Johnston, Professor of Rhetoric and Belles Lettres in the University of Georgia. Philadelphia: J. B. Lippincott & Co. 1860.

*Is the English Bible the Word of God? The Canon of Holy Scripture.* By Matthew H. Henderson, D. D. New York: Pott & Amery. 1868.

*A Book about Dominies.* By A. R. Hope. Boston: Roberts Brothers. 1869.

*Dolores: A Tale of Disappointment and Distress.* By Benjamin Robinson. New York: E. J. Hale & Sons. 1868.

*The Fisher Maiden; A Norwegian Tale.* By Björnstjerne Björnson. Translated by M. E. Niles. New York: Leypoldt & Holdt. 1869. For sale by Cushings & Bailey, Baltimore.

*Beginning German.* By Dr. Emil Otto. Arranged by L. Pylodet. New York: Leypoldt & Holdt. 1869.

*Beginner's French Reader.* Arranged by L. Pylodet. New York: Leypoldt & Holdt. 1869.

*New Guide to German Conversation.* By L. Pylodet. New York: Leypoldt & Holdt. 1869.

*Landmarks of Ancient History.* By Miss Yonge, Author of the 'Heir of Redcliffe.' New York: Leypoldt & Holdt. 1868.

*Landmarks of Mediæval History.* By Miss Yonge. New York: Leypoldt & Holdt. 1868.

*Landmarks of Modern History.* By Mrs. Yonge. New York: Leypoldt & Holdt. 1868.

*As by Fire.* By Miss Nelly Marshall. New York: Geo. S. Wilcox. 1869.

*Poems.* By William James McClure. New York: P. O'Shea. 1869.

*A Manual of Mythology.* By Rev. George W. Cox, M. A. New York: Leypoldt & Holdt. 1868.

*A Lecture on the Limitation of Estates*, delivered before the Law Class of the University of Mississippi. By Alexander M. Clayton, LL. D. Jackson, Mississippi: Daily Clarion Steam Book and Job Printing Establishment. 1868.

*Fifteenth Annual Report of the Young Men's Christian Association of Baltimore.* Baltimore: J. B. Rose & Co.

*Physical Survey of Virginia. Preliminary Report No.* 1. By. M. F. Maury, LL. D., &c., &c. An extended notice of this Report will be given in the July number of this Review, for 1869.

*A Glance at Medical History.* By Richard A. Wise, M. D.

*A Letter on the Financial Situation.* By Francis B. Loney of Baltimore: Lucas Brothers. 1869.

*Eighteenth Annual Report of the Managers of the House of Refuge, made to the Governor of Maryland.* Baltimore: Innes & Co.

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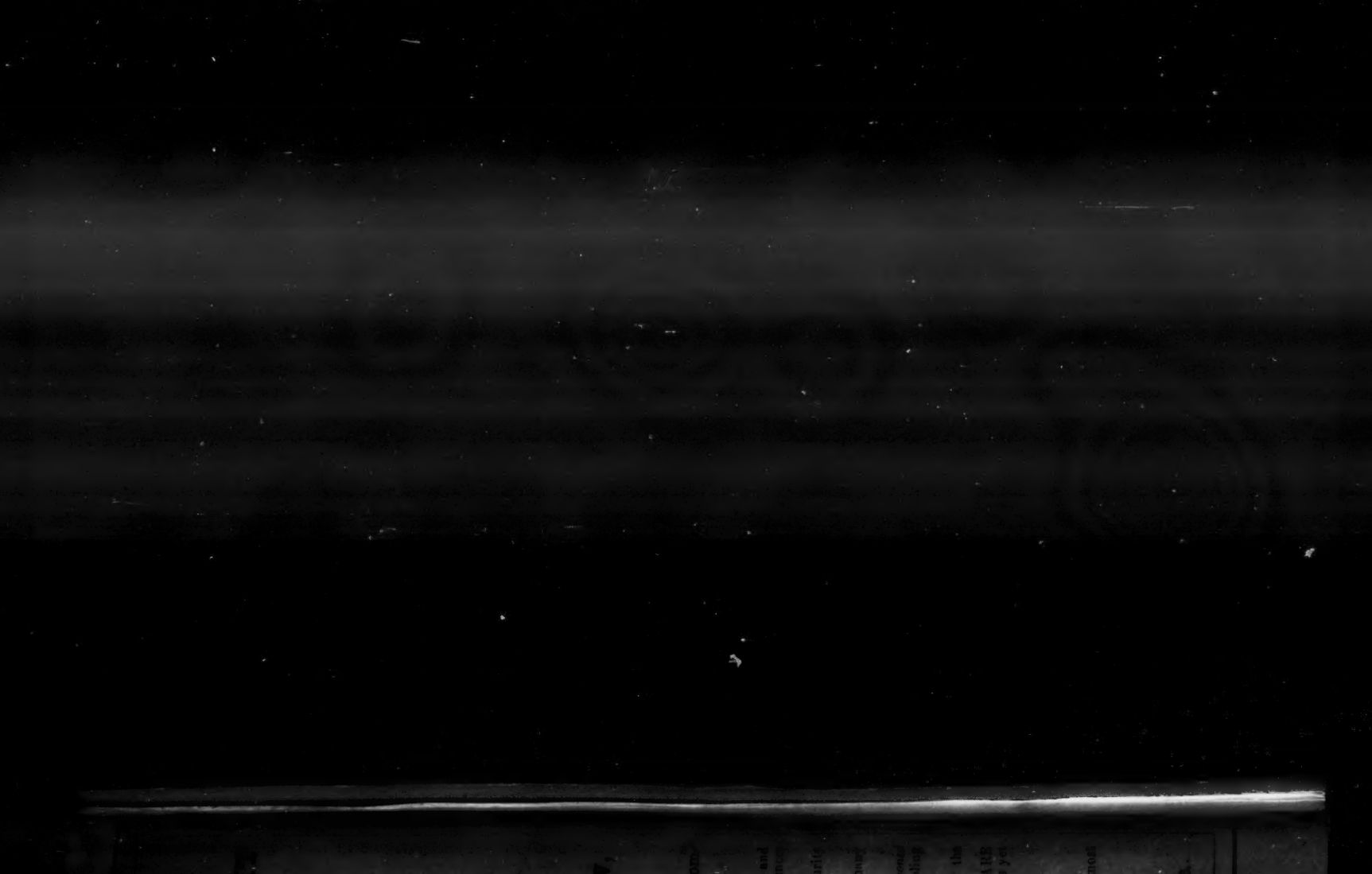
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